

# Learning to Learn in Schools Phase 3 Evaluation Year 1 Final Report

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Steve Higgins, Kate Wall, Chris Falzon, Elaine Hall and David Leat

With Viv Baumfield, Jill Clark, Gail Edwards, Hanneke Jones, Rachel Lofthouse, David Moseley, Jen Miller, Lisa Murtagh, Fay Smith, Heather Smith and Pam Woolner

Centre for Learning and Teaching  
University of Newcastle



UNIVERSITY OF  
NEWCASTLE UPON TYNE



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# 1 Executive Summary

## Introduction

- This report provides details of the methodology, action research projects and findings of the first year of Phase 3 of the Campaign for Learning's five-year Learning to Learn research project. Phase 3 runs from 2003-2006.
- The rationale for all phases of the Learning to Learn project is to understand how we can help pupils to learn most effectively and so give each one the best chance to achieve his or her potential and become a confident, successful lifelong learner.
- Phase 3 builds on work from Phases 1 and 2 and involves clusters of about 10-12 schools from three LEAs: Cheshire, Cornwall and Enfield. These LEAs were selected through a competitive bidding process. Represented within these LEAs are a variety of primary and secondary schools from different geographical and socio-economic areas.
- A model of the knowledge, skills and dispositions used by effective lifelong learners has been developed as the framework for research in Phase 3, known as the 5Rs model (Readiness, Resourcefulness, Resilience, Remembering and Reflection). The schools have then developed their research projects and hypotheses to show how they will develop these dispositions and how they will measure the impact, using a range of quantitative and qualitative data.
- A research team based at the Centre for Learning and Teaching at Newcastle University are evaluating Phase 3 of the Learning to Learn in Schools project for the Campaign for Learning and are providing action research support to the schools involved.

## Research strategy

- The evaluation of Phase 3 of the Campaign for Learning's Learning to Learn in schools project uses an action research approach in which teachers in each school collaborate to undertake an investigation into an aspect of Learning to Learn which they report as a case study of their enquiry.
- The University team analyses the themes across these case studies to identify any common features. In addition further research investigates common trends in the impact of Learning to Learn across the project schools.

- The use of ICT to support teachers' investigations is central to the project. Information, resources and research tools are made available electronically and shared using the internet and e-mail. This supports the embedding of ICT in the professional work of the teachers involved.

### **The teachers' case studies**

- A total of 31 case studies were produced reporting schools' investigations for this first year of the Learning to Learn in Schools Phase 3 Evaluation (seven from secondary schools, 19 from primary schools, one from a junior and four from infant schools).
- All of the schools report that Learning to Learn has had a positive impact on teaching and learning. Eighteen of the case studies report a measurable impact on pupils' attainment.
- The focus for schools' investigations was varied but included approaches such as the use of formative assessment, Circle Time, involving parents, developing pupils' understanding of how they learn, improving talk and collaboration or a range of approaches such as Accelerated Learning, the use of Mind Maps®, Brain Gym® or Multiple Intelligences. Some schools developed their own approaches or developed specific Learning to Learn courses.
- Most schools identified more than one focus for their projects. The main aims were the development of confident and capable lifelong learners, raising standards, and overcoming underachievement and challenging behaviour. Many of the projects also have a focus on teachers' motivation and capacity to manage change, on the impact of different learning environments, and on breaking down differences in achievement within school. Other themes include the importance of the school's role in the wider community, assessment, and ICT.
- The vast majority of reports (27/31) identified that Learning to Learn was beneficial for pupils particularly relating to specific project aims but also in terms of wider affective outcomes such as increased enthusiasm, motivation and enjoyment in school.
- Twenty four reports identified benefits for teachers such as improved teaching strategies and classroom interaction or benefits professionally in terms of gaining new perspectives by working with colleagues or working in new and challenging ways.

- Just under half (14) of the reports mentioned benefits at a whole school level, such as the development of whole school approaches, improved teamwork and better community relationships as a result of Learning to Learn.

### **Kinds of data**

- Schools used a range of kinds of data in their investigations including much that is routinely collected (such as pupils' attainment and informal classroom observations). Many also used further methods such as questionnaires and interviews.
- Analysis of the project questionnaire which surveyed pupils' attitudes to school and learning indicates that pupils tend to report more negative attitudes to learning and school as they get older.
- Analysis of the pupil view templates indicates that children involved in Learning to Learn are more aware of the process of learning. This is apparent in even young children's responses to the work they had been doing and is especially evident where schools compared Learning to Learn groups with pupils not using these approaches.
- In interviews and questionnaires pupils showed that they were aware of and valued the climate that Learning to Learn supports. They also acknowledged the value of talking with their peers and collaborating in their learning as well as indicating positive benefits in terms of their self-esteem and understanding of their learning.
- Pupil learning logs had a strong reflective element and were often explicitly used as ways of developing pupils' awareness of their learning, setbacks and progress. They appear to be a good way of measuring pupils' developing understanding of their learning and most pupils enjoyed having a forum to express their views.
- Informal classroom observations were widely used and common findings related to pupils' engagement and motivation. More structured observations reported increased time on task or a higher quality of pupil talk.

### **Teachers' perceptions of Learning to Learn**

- Telephone interviews were conducted with twenty teachers, to investigate perceptions of a Learning to Learn school; a Learning to Learn teacher; and a Learning to Learn pupil.

- The teachers interviewed identified a number of common features of Learning to Learn pupils which fell into three broad categories. These were that Learning to Learn pupils are aware of the process of learning; Learning to Learn pupils are psychologically prepared for learning; Learning to Learn pupils are effective communicators.
- The descriptions of a Learning to Learn teacher produced 12 different themes which were categorised into three broader groups: Effective relationships with pupils; Process features (such as talking about learning) and Environmental factors (such as setting effective conditions for learning).
- There was less of a consensus in teachers' descriptions of a Learning to Learn school, though the responses can be categorised in terms of school culture (such as a focus on teaching and learning), what pupils do (such as being reflective and being prepared to take risks) and what teachers do (such as using a variety of teaching styles and approaches).

## Conclusions

- The action research investigations by the schools involved in the first year of Phase 3 of the Campaign for Learning's Learning to Learn in Schools project overwhelmingly report positive benefits for the pupils, teachers and schools involved.
- The findings are based on small-scale case studies which investigated a range of Learning to Learn approaches and techniques. This makes it difficult to determine the precise nature and cause of these identified benefits. Most schools used a combination of qualitative and quantitative data collection to triangulate their findings and, whilst these may not be conclusive, they are certainly indicative that the introduction of Learning to Learn approaches in schools has been beneficial and has a positive impact on both teachers' and pupils' motivation and that the teachers involved could identify further benefits in terms of pupils' attainment and attitudes to learning.
- Where schools did use a more experimental research approach (such as by having a comparison group) both the quantitative and qualitative data are again positive and indicate clear differences in Learning to Learn classes compared with those not using the approaches. One school which investigated the use of formative assessment found an effect size difference of 0.76 in favour of the two classes involved in using the Learning to

Learn approach (this indicates that an average class using this approach would move up from 50th to 23rd in a ranked list of 100 similar classes). Learning to Learn pupils also showed qualitatively different responses and understanding about their learning when compared with peers who had not been involved in Learning to Learn activities.

- The role of the individual pupil has been identified as central to Learning to Learn. Developing knowledge and awareness of their own learning is the key feature of both broad Learning to Learn approaches (such as approaches which develop knowledge of how pupils learn) and more focussed approaches (such as assessment for learning where pupils take responsibility for identifying criteria to demonstrate their success in meeting learning objectives).
- There is also evidence of impact on the teachers involved in terms of their own professional learning, improvement in motivation, in confidence in using Learning to Learn strategies and approaches and increased belief and confidence in the success of these strategies to improved attainment and to help pupils see themselves as successful learners.
- The value of involving parents and families at both primary and secondary level is identified in some of the case studies as beneficial. The impact of this appears to have a direct benefit for pupils in terms both of their engagement with school and their attainment.



## 2 Introduction

This report provides details of the action research projects and findings from the first year of Phase 3 of the Campaign for Learning's five-year investigation of Learning to Learn. This report therefore presents preliminary findings from the first year of a three-year project. The Campaign for Learning describes the aim of the Learning to Learn in Schools project as:

to understand how we can help pupils learn most effectively and so give each one the best chance to achieve his or her full potential. In practice, this has entailed investigation of a range of interventions aimed at recognising and supporting pupils' different learning styles and at making the learning process more explicit so as to develop independent learning skills and boost motivation. The project also investigates the impact of learning how to learn on pupil attainment and on teacher morale.

Phase 3 builds on work from Phases 1 and 2 (both reports are available on the Campaign for Learning website<sup>1</sup>) and involves 32 schools from 3 LEAs: Cheshire, Cornwall and Enfield. Represented within these LEAs are a variety of primary and secondary schools from different geographical and socio-economic catchment areas. Each of the clusters of schools were successful in bidding competitively to be part of the project and each LEA has a designated co-ordinator who supports the schools locally.

Specifically the research in Phase 3 aims to understand:

- the relative importance of different Learning to Learn approaches in raising standards
- how the adoption of Learning to Learn approaches impacts on teacher motivation and capacity to manage change
- whether, and if so how, Learning to Learn approaches support the development of confident and capable lifelong learners.

More generally the project aims to:

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<sup>1</sup> <http://www.campaignforlearning.org.uk/projects/L2L/Resources/researchreports.htm>

1. Explore the impact of Learning to Learn approaches adopted in Phases 1 and 2 of the project with a larger number of representative schools and assess how Learning to Learn can be integrated most effectively into schools more widely. Including issues such as:
  - how best to link Learning to Learn in school with out of school hours learning and family and community learning;
  - how to assess Learning to Learn;
  - how to achieve transfer of Learning to Learn approaches into other curriculum areas; and
  - the potential for and impact of online Learning to Learn and its fit with other online learning.
2. Deepen our understanding of Learning to Learn and its application among different groups for different purposes in schools including:
  - the interplay between positive learning environments and effective Learning to Learn teaching;
  - the impact of Learning to Learn approaches in overcoming challenging behaviour;
  - the role of Learning to Learn in helping pupils manage school transition and transfer;
  - the potential for Learning to Learn approaches in overcoming underachievement among boys and specific ethnic minority groups; and
  - assess the impact of Learning to Learn over time on pupil attitudes, achievement and lifelong learning dispositions and practices.

The Learning to Learn in Schools project is therefore a major action research project which is exploring the impact of teaching pupils how they learn. The key question underpinning the research was: **how can pupils be enabled to learn most effectively so that each one has the best chance to achieve his or her full potential?**

The first two phases of the Learning to Learn research from 2000 - 2002 were designed to explore whether, and if so how the Learning to Learn approaches can help to raise standards and create confident and effective lifelong learners. Other areas of interest included the impact of learning to learn on teacher effectiveness, professional development and motivation, the development of

pupils as independent learners, the involvement of parents and school culture.

A range of thinkers and practical initiatives in schools have influenced the project and the schools, including the work of Professor Guy Claxton, Alistair Smith, Dr Bill Lucas and Jenny Mosely. Some of these influences have emerged from academic research, others from teachers in schools on the basis of their professional experience. One of the aims of the project has always been to bring together different perspectives and establish a consensual set of theories and practices backed by robust research-based evidence for their effectiveness.

## ***2.1 What is Learning to Learn?***

The Campaign defines 'learning to learn' as a process of discovery about learning. It involves a set of principles and skills which, if understood and used, help learners learn more effectively and so become learners for life. At its heart is the belief that learning is learnable.

In brief, 'learning to learn' offers pupils an awareness of:

- how they prefer to learn and their learning strengths;
- how they can motivate themselves and have the self-confidence to succeed;
- things they should consider such as the importance of water, nutrition, sleep and a positive environment for learning;
- some of the specific strategies they can use, for example to improve their memory or make sense of complex information;
- some of the habits they should develop, such as reflecting on their learning so as to improve next time.

What makes a good learner? Or, put another way, what knowledge, skills and attitudes or attributes should a 'learning to learn' approach develop? In answer to these questions the Campaign has developed the 5 Rs for lifelong learning model (Readiness, Resourcefulness, Resilience, Remembering and Reflection). This is a model of the knowledge, skills and dispositions utilised by effective lifelong learners and has been developed as the framework for research in Phase 3 (see Table 1 below). While taking full responsibility for this model, the Campaign acknowledges with gratitude the work of Guy Claxton, Bill Lucas, Alistair Smith and Toby Greany

on which it is based. The Campaign for Learning believes that it is by using a range of approaches to develop the 5Rs in all their pupils, schools can achieve their core purpose, namely preparing all young people so that they can, and do, continue learning effectively throughout their lives. The aim of Phase 3 of the project is to explore with the project schools how this is best done and the impact that this has on teaching and learning. The schools were introduced to the model at the outset of the project and identified aspects of the 5Rs that they feel they particularly need to develop in their schools. They then developed their research projects and hypotheses to indicate how they would develop this aspect and how they will measure the impact, using a range of quantitative and qualitative data.

**Table 1: The 5 Rs for Lifelong Learning**

	<b>Attitudes/Attributes</b>	<b>Skills</b> Demonstrates ability to:	<b>Knowledge</b> Knows how:
Readiness	<ul style="list-style-type: none"> <li>• Motivation</li> <li>• Curiosity</li> <li>• Self-belief/esteem</li> <li>• Self-efficacy (<i>optimism re the learning outcome, confidence and willingness to take risks</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Assess and manage own motivation towards a task</li> <li>• Set specific goals which connect to particular learning</li> <li>• Achieve a positive learning state</li> <li>• Manage own learning process</li> <li>• Talk about learning to learn in relation to a new task</li> </ul>	<ul style="list-style-type: none"> <li>• To assess own motivation</li> <li>• To set goals and connect to the learning</li> <li>• To use a L2L language</li> <li>• To assess own preferred learning environment</li> </ul>
Resourcefulness	<ul style="list-style-type: none"> <li>• Learning from and with others</li> <li>• Learning creatively in different ways</li> <li>• Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Make most of preferred learning style and environment</li> <li>• Develop and expand learning repertoire and to harness creativity</li> <li>• Find and use information</li> <li>• Communicate effectively in different ways</li> </ul>	<ul style="list-style-type: none"> <li>• The mind works and how humans learn.</li> <li>• To assess own preferred learning style and environment</li> <li>• To use different approaches to learning</li> <li>• To seek out and use information, including through ICT</li> <li>• To communicate effectively in different ways</li> </ul>
Resilience	<ul style="list-style-type: none"> <li>• Keeping going</li> <li>• Learning under stress</li> <li>• Managing feelings about learning and teachers, peers and resources</li> </ul>	<ul style="list-style-type: none"> <li>• Persist and apply learned optimism and self-belief/self-efficacy approaches</li> <li>• empathise and use Emotional Intelligence</li> <li>• Use different approaches when stuck</li> </ul>	<ul style="list-style-type: none"> <li>• To use learned optimism and self-efficacy approaches</li> <li>• To empathise and use EQ approaches</li> <li>• To proceed when stuck</li> </ul>
Remembering	<ul style="list-style-type: none"> <li>• Maximising own memory</li> <li>• Applying learning</li> <li>• Practising</li> </ul>	<ul style="list-style-type: none"> <li>• Use different memory approaches</li> <li>• Make connections</li> <li>• Apply learning/use what has</li> </ul>	<ul style="list-style-type: none"> <li>• To use different memory approaches</li> <li>• To make connections</li> <li>• To apply learning, including in</li> </ul>

		been learned, including in different contexts.	different contexts.
Reflectiveness	<ul style="list-style-type: none"><li>Looking back</li><li>Improving learning and performance</li></ul>	<ul style="list-style-type: none"><li>Stop and reflect (<i>eg ask questions, observe, see patterns</i>)</li><li>Experiment with learning</li><li>Evaluate learning</li></ul>	<ul style="list-style-type: none"><li>To stop and reflect (<i>eg ask questions, observe, see patterns</i>),</li><li>To experiment with learning</li><li>To use different ways to evaluate learning</li></ul>

A research team based in the Centre for Learning and Teaching at Newcastle University are evaluating Phase 3. The team have acted as facilitators and supporters of the action research projects undertaken in schools and have conducted additional activities to identify the impact of the use of Learning to Learn approaches in schools. Each year all of the schools involved in the project undertake an action research project which they write up as a case study. Over the three years of the project the University team will draw together the research themes and trends to provide an analysis which seeks to answer the overall research questions outlined above. These case studies are the main outcomes of each of the years of the project and this report should be read in conjunction with them. They are available on the Campaign for Learning's website.<sup>2</sup>

## 2.2 Summary

- This report provides details of the methodology, action research projects and findings of the first year of Phase 3 of the Campaign for Learning's five-year Learning to Learn research project. Phase 3 runs from 2003 to 2006.
- The rationale for all phases of the Learning to Learn project is to understand how we can help pupils to learn most effectively and so give each one the best chance to achieve his or her potential and become a confident, successful lifelong learner.
- Phase 3 builds on work from Phases 1 and 2, involves clusters of about 10-12 schools from three LEAs: Cheshire, Cornwall and Enfield. These LEAs were selected through a competitive bidding process. Represented within these LEAs are a variety of primary and secondary schools from different geographical and socio-economic areas.

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<sup>2</sup> <http://www.campaign-for-learning.org.uk/projects/L2L/l2lindex.htm>

- A model of the knowledge, skills and dispositions used by effective lifelong learners has been developed as the framework for research in Phase 3, known as the 5Rs model (Readiness, Resourcefulness, Resilience, Remembering and Reflection). The schools have then developed their research projects and hypotheses to show how they will develop these dispositions and how they will measure the impact, using a range of quantitative and qualitative data.
- A research team based at the Centre for Learning and Teaching at Newcastle University are evaluating Phase 3 of Learning to Learn for the Campaign for Learning and are providing action research support to the schools involved.

### 3 Research Strategy

The research approach used for the Learning to Learn in Schools Phase 3 Evaluation has been used in a number of projects run by the Centre for Learning and Teaching at the University of Newcastle (e.g. Moseley *et al.* 1999; Higgins *et al.* 2004) and developed for this project in collaboration with the Campaign for Learning. The teachers in each of the schools involved are the key researchers, with the University team playing a facilitating and supporting role in their professional enquiries. In each school teachers work collaboratively to undertake an action research investigation into an aspect of Learning to Learn which they have identified as having some potential to develop learners' dispositions towards their own learning as described in the Campaign for Learning's '5Rs' framework.

They are encouraged to test out the claims of the approach to determine the impact within their own context. The rationale for this kind of action research draws on the ideas of Stenhouse (1981) of 'systematic, critical inquiry made public' with the intended audience for their enquiry identified as a 'sceptical colleague' who needs to be convinced of the impact of the chosen approach. A key theme in this action research methodology and in the Phase 3 Learning to Learn in Schools Evaluation is therefore the theme of reflective practice. Through the idea of systematic and critical enquiry the teachers aim to investigate and learn about their own practice. At the same time the Learning to Learn approaches are used to encourage pupils to develop understanding of their own learning so that they can use this to help themselves learn more effectively in the future.

A project website has become a central hub of the research project. This password protected site operates as a networking device, within which teachers can share ideas and access a range of different resources:

- advice to help with planning their research project;
- information on different research methods which can be used, including guides for use as well as examples and templates for various data collection tools;
- a database of all the other schools/teachers' projects to support informal contact;

- suggestions for writing up the project including templates and specific guidance for different sections of up the case study; and
- online data collection tools, such as an attitude questionnaire for pupils which was used in the Learning to Learn project to provide immediate quantitative data for each project, but also as a means of collecting data across schools

The website is designed to support the teachers through each step of the research process, while also keeping the focus of the larger project as explicit as possible. The tools and guidance on the website are designed to reduce the impact that the research could potentially have on teachers' time; the research tools, covering both qualitative and quantitative methods, are available and there is a considerable emphasis on using the data routinely collected in schools for the purposes of research and also in providing tools that will complement the processes of teaching and learning within the teachers' classroom, for example, templates for structuring pupils' talk about metacognition are provided, as are sample learner logs for both teachers and pupils. These resources were used by teachers initially for the research inquiry but some, such as the pupil views sheets, are continuing to be used by the teachers to support their teaching.

The internet also plays an important role in bringing the projects together into a single study. This happens through the bank of data collection resources and the online data collection tools. These tools are used by the individual teachers within their projects, but their use in different inquiries means that cross-project analysis can occur – this can be a quantitative meta-analysis (using effect sizes) or an examination of the qualitative themes resulting from interviews with a common schedule. This has been a key function of the website as it has increased commonality across projects.

E-mail is used extensively in the project to exchange information and to provide support to individual schools and teachers. Advice, ideas and practical guidance with drafting case studies are all key features of providing support, particularly important considering the geographical locations of the schools involved.



Each school reports its investigation by contributing a case study to the overall project report so that any common themes or findings can be identified. In addition the University team is undertaking further research and analysis to identify the broader impact of adopting Learning to Learn approaches (such as the teacher interviews reported below). This will include an analysis of the impact of pupils' performance at school level as the project progresses.

### **3.1 Summary**

- The evaluation of Phase 3 of the Campaign for Learning's Learning to Learn in Schools project uses an action research methodology in which teachers in each school collaborate to undertake an investigation into an aspect of Learning to Learn which they report as a case study of their enquiry.
- The University team analyses the themes across these case studies to identify any common features. In addition further research investigates common trends in the impact of Learning to Learn across the project schools.
- The use of ICT to support teachers' investigations is central to the project. Information, resources and research tools are made available electronically and shared using the internet and e-mail. This supports the embedding of ICT in the professional work of the teachers involved.

## 4 Case Studies

A total of 31 case studies (seven from secondary schools, 19 from primary schools, one from a junior school and four from infant schools) were produced as a result of Year 1 of the Learning to Learn in Schools Phase 3 Evaluation. These are summarised in Table 4. Included in this table is the Learning to Learn focus (this could be a Learning to Learn model or something the school/teacher has developed themselves), the designated 5R focus, the title of the research project, the age group and the research methods used. The enthusiasm and dedication of the teachers involved is one of the key features of the project.

In that the teachers were supported in selecting a focus which was of personal professional interest and suitable to their own school context the focus of the case studies is very varied. There are, however, some identifiable trends:

- two schools, Treloweth Primary, Cornwall and Wilbury Primary, Enfield, chose to investigate formative assessment, based on the work of Shirley Clarke and Paul Black and Dylan Wiliam;
- Winsford High Street Community Primary (Key Stage 1 project) in Cheshire and all five reports from Alverton Community Primary in Cornwall looked explicitly at Jenny Mosley's model of Circle Time;
- Camborne Science and Community College (1) and St Meriadoc Infant and Nursery School (both located in Cornwall) chose to examine how parental involvement and knowledge about Learning to Learn helps pupils' learning and attainment;
- two school incorporated their Learning to Learn approach into specified days in which the curriculum was suspended and the focus was solely on Learning to Learn, these schools were Brannel School and Lanner Primary School from Cornwall;
- a number of schools looked at talk in the classroom, either paired talk (Geoff Hannan) or cooperative learning (Spencer Kagan); these were, Fleecefield Primary, Brettenham Primary and Oakthorpe Primary (all located in Enfield), and Fallibroome High School in Cheshire; and

- there were also a number of schools which took a more generalised approach; perceiving Learning to Learn to be as much about ethos as the development of specific study skills and have therefore investigated a range of Learning to Learn strategies in the classroom, including Accelerated Learning (Alistair Smith) Mind Maps® (Tony Buzan), Brain Gym® (Paul and Gail Dennison) and Multiple Intelligences (Howard Gardner). Schools adopting this approach included, from Cheshire, Over Hall Primary, Sutton High School, Winsford High Street Community Primary, Wolverham Primary and Woodford Lodge High School, from Cornwall, Camborne Science and Community College (2) and Kehelland Village Primary, and from Enfield, Hazelbury Juniors and Raynham Primary.

A large group of schools developed individualised programmes based on their own professional experience and beliefs as well as their knowledge of different published approaches. For example:

- Pennoweth Primary School, Cornwall, examined the learning environment and the impact of developing pupils' choice in Key Stage 1;
- in Cheshire, the development of generalised learning skills was explored by John Street Primary;
- pupil reflection was the focus of Cheshire school Leaf Lane Infants and Nursery
- teachers at St Saviour's Infant School made and developed 'stuck mats' to help children be more resourceful in their learning;
- The Roseland School, Cornwall, looked at single gender teaching groups; and
- Hazelbury Infants in Enfield are investigating a Personal Effectiveness Programme Initiative.

**Table 2: Overview of the case studies from Year 1 of the Learning to Learn Phase 3 Evaluation**

<b>LEA</b>	<b>School</b>	<b>Project Title</b>	<b>5R Focus</b>	<b>Key Stage</b>	<b>Focus Group</b>	<b>L2L Focus</b>	<b>Research Methods</b>
Cheshire	Fallibroome High School (Jane Gormally)	Learning Together: Implementing Cooperative Learning Techniques in a Secondary School	Resilience, Resourcefulness Readiness	Key Stage 3	Year 7	Cooperative learning	On task/off task observations, teacher questionnaire, project questionnaire, focus group interviews
Cheshire	John Street Primary School (Lyn Marshall)	Using the Teaching of PE to Develop Readiness Skills to Enable Children to Learn Successful	Readiness	Key Stage 1 Key Stage 2	Year 2 Year 5	Developing learning skills	Teacher & pupil learning logs, pupil views templates, examples of pupils' work, spelling test scores, pupil interviews
Cheshire	Leaf Lane Infants School (Shelley Long and Lindsey Weedall)	Stop! Time to Reflect	Reflectiveness	Foundation Stage Key Stage 1	Nursery to Year 2	Brain Gym®, Tai Chi, relaxation and visualisation, Mind Mapping®, ICT – digital camera	PIPS and baseline assessment in Foundation Stage, teachers logs, pupils' learning logs, project questionnaire, pupil interviews with pupil views template, digital images
Cheshire	Over Hall Primary School (Simon Kidwell and Nicola Dowling)	Using Multiple Intelligences to Create Resourceful Lifelong Learners	Resourcefulness	Key Stage 2	Year 3 Year 6	Multiple Intelligences Accelerated Learning thinking skills	Project questionnaire, teacher log, learning logs, work samples
Cheshire	St Saviour's Catholic Infant School (Fleur McAlavey and Mary Barrett)	Implementing and Developing 'Learning Mats' and 'Stuck Mats' in Key Stage 1	Remembering Resourcefulness	Key Stage 1	Year 1 Year 2	Learning mats, stuck mats	Work samples, pupil response records, pupil questionnaires, pupil interviews, teacher interviews, SATS data
Cheshire	Sutton High School (John Rutter, Dave Morris, Annette Parkin and Sue Moore)	Learning to Learn: A Mind-Friendly Approach to Maths and Humanities	Remembering Reflectiveness Readiness	Key Stage 3	Year 7 Year 8 Year 9	Mind Maps®, peer coaching and Brain Gym®	GOAL assessment, value added tests, attendance data, project questionnaire, pupil questionnaire
Cheshire	Winsford High Street Community Primary School (Chris Stelling)	Creating Resourceful Lifelong Learners	Resourcefulness	Foundation Stage Key Stage 1	Nursery to Year 2	Circle Time	Pupil questionnaire, informal observations, pupil interviews with pupil views template, teacher log

Cheshire	Winsford High Street Community Primary School (Sonya Huxley)	Resourceful, Lifelong Learning	Resourcefulness	Key Stage 2	Year 3 Year 4 Year 5 Year 6	Co-operative learning, the Accelerated Learning Programme and CHAMPS	Informal observations, learning logs, project questionnaire
Cheshire	Wolverham Primary School (Moirá Conde)	Developing Resilience in Pupils Throughout the Primary School	Resilience	Key stage 2	Year 6	Mind friendly techniques, Multiple Intelligences, parental involvement, Mind Mapping® and cooperative learning	Pupils' learning logs, project questionnaire (Y5 & 6 and Unit), teacher log, SATS
Cheshire	Woodford Lodge High School (Martin Fleetwood)	A One Year Study of Delivering Non-Fiction Texts within a Mind Friendly Structure	Remembering Resourcefulness Readiness	Key Stage 3	Year 7	Mind friendly environment	SATS/ attainment data, teachers' and pupils' learning logs, informal observation, pupil interviews, parent interviews, target setting, attendance and behaviour data
Cornwall	Alverton Community Primary School (Cathryn Wicks)	Raising Self Esteem through Circle Time in Year 5	Resilience Readiness	Key Stage 2	Year 5	Circle Time	Project questionnaire, case study of under-achieving boys,
Cornwall	Alverton Community Primary School (Denise Lawry)	Raising Self Esteem through Circle Time in Foundation Stage 2	Resilience Readiness	Foundation Stage	Reception	Circle Time	Baseline assessments, staff and pupil interviews
Cornwall	Alverton Community Primary School (Helen Hughes)	Raising Self Esteem through Circle Time in Year 5	Resilience Readiness	Key Stage 2	Year 5	Circle Time	Project questionnaire, Informal classroom observations,
Cornwall	Alverton Community Primary School (Kathryn Hamley)	Raising Self Esteem through Circle Time in Year 6	Resilience Readiness	Key Stage 2	Year 6	Circle Time	Project questionnaire, informal observations,
Cornwall	Alverton Community Primary School (Rick Gill)	Raising Self Esteem through Circle Time in a Year 3/4 Class	Resilience Readiness	Key Stage 2	Year 3/4	Circle Time	project questionnaire, pupil interviews, attainment levels
Cornwall	Brannel School (Heather Jenkins)	Learning to Learn: A Whole School Approach	Resourcefulness Readiness Remembering Resilience Reflectiveness	Key Stage 3 Key Stage 4	Year 7 Year 8 Year 9 Year 10	Learning dispositions, and departmental focus on a 5R	Project questionnaire, department data, pupil interviews, staff interviews, SATS data
Cornwall	Camborne School and Technical	Assessing the Impact of 'Getting Parents More	Resilience Resourcefulness	Key Stage 4	Year 11	Parental involvement	Coursework marks and GCSE results, staff interviews, parent

	College (1) (John Welham)	Involved in School' on Student Motivation and Attainment	Readiness				interviews, pupil interviews
Cornwall	Camborne School and Technical College (2) (John Welham)	Assessing the Impact of a Whole School Learning to Learn Strategy	Resourcefulness Readiness Remembering Resilience Reflectiveness	Key Stage 3 Key Stage 4 Key Stage 5	Whole school	Learning to Learn policy	Staff questionnaire, GCSE results
Cornwall	Kehelland Village School (Richard Gambier, Karen Brooker, Carol Polglase and Carol Rees	Life-long and Life-wide Learning	Remembering Reflectiveness Readiness	Foundation Stage Key Stage 1 Key Stage 2	Whole school	Classroom reorganisation, environmentally based school curriculum, design SKILLS LADDER, personalised log books	Project questionnaire, parental interviews, staff interviews, learning logs
Cornwall	Lanner Primary School (Liz Martin and Pippa Pender)	Using Different Teaching Techniques and Organisation to Develop Readiness Skills	Readiness	Key Stage 1 Key Stage 2	Year 2 Year 6	Specific Learning to Learn focus days: 'Challenge Days'	Digital images, informal observations, staff feedback, pupil questionnaire, SATS results
Cornwall	Pennoweth Primary School (Nicola Furnish and Helen Tonkin)	The Role of the Environment in Developing Lifelong Learners	Resourcefulness Reflectiveness Readiness	Foundation Stage Key Stage 1	Reception Year 1	Learning environment	Digital images, on-task/off task observations, pupil questionnaire, teacher interviews, baseline data
Cornwall	St Meriadoc CofE Infant and Nursery School (Linda Stephens and Irene Pooley)	Does Introducing Parents to Learning to Learn Techniques have a Positive Effect on Pupils' Achievement?	Resilience Readiness	Foundation Stage Key Stage 1	Parents of children in Nursery to Year 3	Parental involvement in Learning to Learn	Questionnaire to parents, project questionnaire, spelling test results, SATS data, teachers' informal observations
Cornwall	The Roseland School (Mandi Horwood and Rita Martin)	An Investigation of the Effects of Gender Specific Classes for Teaching Secondary English	Resourcefulness	Key Stage 3	Year 9	Gender specific approaches to learning	CAT data and SATS, pupil questionnaires, staff questionnaire, parental questionnaire
Cornwall	Treloweth Primary School (Ann Webb and Pat Williams)	An Investigation of the Impact of Formative Assessment Strategies on Behaviour, Self Esteem and Attainment	Reflectiveness	Foundation Stage, Key Stage 1 Key Stage 2	Nursery to Year 6, with focus on Year 4	Formative assessment	Informal observations, teacher questionnaire, pupil questionnaire, case study of Year 4, SATS data, project questionnaire, SMT monitoring

Enfield	Brettenham Primary School (Julie D'Abreu and Christina Sultan)	Developing Oracy in Year 2 with a Particular Focus on Turkish-Speaking Pupils	Resourcefulness	Key Stage 1	Year 2	Multiple Intelligences, VAK, paired talk	Case studies of individual pupils, lesson observations, pupil interviews
Enfield	Fleecefield Primary School (Emma Glasner and Ulfet Mahmoud)	The Possibilities of Paired Learning in the Primary School	Resourcefulness, Reflectiveness, Readiness	Key Stage 2	Year 6	Paired learning	Observations of questioning techniques and on task/off task, pupil views templates, pupil interviews, project questionnaire, teacher assessments, SATS
Enfield	Hazelbury Infant School (Janet Thomas and Laurel Barber)	Introducing the Personal Effectiveness Programme Initiative (PEPI) into an infant school	Resourcefulness Reflectiveness Readiness	Foundation Stage, Key Stage 1	Reception	Personal Effectiveness Programme Initiative (PEPI)	Matrix of children's achievements, individual achievement records, digital images, informal observations, pupil interviews
Enfield	Hazelbury Junior School (Christine Clipson)	Developing Reflectiveness and Resourcefulness in Year 4 Pupils	Reflectiveness Resourcefulness	Key Stage 2	Year 4	Brain Gym®, water, classical music, VAK	Focus group interviews, teacher interviews, SATS results, parental questionnaire, project questionnaire
Enfield	Oakthorpe Primary School (Louiza Loizides and Michelle Wood)	The Talk Project	Resourcefulness Reflectiveness	Key Stage 1	Year 2	Talk programme (10 planned 'talk' sessions)	Transcripts of sessions, project questionnaire, pupil confidence questionnaires, SATS, pupil tracking, video
Enfield	Raynham Primary School (Felicia Lord-Attivor)	Developing Resilience	Resilience	Key Stage 2	Year 6	Brain Gym®, thinking skills and a range of assessment strategies	Pupil questionnaires, pupil interviews, informal observations
Enfield	Wilbury Primary School (Anne Mulcahy and Elaine Saini)	Using Formative Assessment Strategies to Improve Children's Writing or " <i>Nobody's Brain is Ever Full Up</i> "	Resourcefulness Reflectiveness	Key Stage 1	Year 2	Formative assessment	Teacher assessments, SATS data, work samples, project questionnaire, pupil interviews using pupil views template, learning logs

## 4.1 Impact on attainment

It is difficult to assess the impact of small-scale action research projects on pupils' attainment. Over the three years of the project analysis will be undertaken to identify any term impact or any trends in the Learning to Learn classes and schools. At this stage we can describe the findings from the projects as the teachers' report them. All of the reports describe some positive benefits for learning to learn. Eighteen of the case studies explicitly identify measurable improvement in pupils' attainment. These findings from the case studies are summarised in the table below. Full details can be found in the case study reports available on the Campaign for Learning's website.

**Table 3: Summary of impact on attainment from the case study reports**

LEA	School	Evidence of improved attainment
Cheshire	Leaf Lane Infants	Year 2 SATs results were a great improvement on last year's attainment.
Cheshire	St Saviour's Infants	SATs results show an improvement, particularly written work from the beginning of the year.
Cheshire	Sutton High	Both groups showed significant improvement in the Goal Assessment scores increasing by one national curriculum level on average.
Cheshire	Woodford Lodge High	62% of the group achieved an increase on their Key Stage 2 average level. 25% achieved a one level improvement and 25% have already achieved their Fischer Family Trust indicative target. 50% of EBD group integrated into mainstream classes.
Cornwall	Alverton Primary (2)	At the end of the second term Child A had achieved a score of 6 in emotional development (Early Years Scale) and 6 in social development (from 0) and Child B had achieved 5 in emotional development and 6 in social development (again from 0). Child C achieved a 4 in emotional development and 7 in social development (similarly from 0).
Cornwall	Alverton Primary (5)	Attainment levels from optional SATs show an average increase of 3.1 for boys and 3.2 for girls in mathematics, 3 for boys and 3.4 for girls in reading and 2.7 for boys and 3.2 for girls in writing compared with an average increase of 3 per year. "These are very positive scores."
Cornwall	Brannel	Results for Year 9 clearly show that performance in this year group is particularly good. Our expectations in Year 8 were higher than those predicted by the Fischer Family Trust, but the percentage gain was 6% on our own targets for English and maths. Results show that for English and maths Brannel School made progress similar to the top 25% of schools. (Tables in case study)



Cornwall	Camborne (1)	GCSE results suggest that students involved in the intervention were more likely to complete their course work and that the intervention helps the students to produce better quality course work in three of the four classes markedly better on average than the national average for these exams.
Cornwall	Camborne (2)	These results suggest that there is a correlation between residual scores and that if a department does engage with the L2L agenda their results tend to be better.
Cornwall	Lanner Primary	In Year 6 there is evidence of higher than expected results in English and science based on 2003 targets, particularly with regard to the number of children achieving level 5.
Cornwall	Pennoweth	The data indicates a 56% rise in children achieving [Early Years] scale 9 in 2004 compared with 2003 and 5% fewer children are achieving scales 1-3. This would indicate a rise in standards.
Cornwall	St Meriadoc Infant & Nursery	We have looked at this Years Key Stage 1 SATs result and can say that out of the children whose parents attended L2L sessions, 66% achieved higher than average grades. What is striking about our school's performance over the last two years is the correlation between the introduction of L2L approaches in Year 2 and to parents and the rise in our PANDA grades. Our average grades moved from an E to and A in writing and from a D to and A* in maths.
Cornwall	The Roseland School	It is possible to see that, although girls are achieving higher levels than the boys, the boys' writing has improved significantly. When the results are looked at according to the grouping to which the pupil was allocated it is clear that the boys and girls in the single gender classes increased their attainment compared with their peers in the mixed gender classes.
Cornwall	Treloweth Primary	An analysis of the mean points gain across the school for the last three years suggests that there has been a significant improvement in both reading and mathematics. This coincides with the implementation of formative assessment and L2L approaches. The gains are most noticeable for the 2004 cohort whose data shows a significant improvement from 2002 to 2004, compared with 2000 to 2002. For example in writing 13.6 points progress from 2002 -2004 compared with 2.7 points for 2000-2002
Enfield	Fleecefield Primary	Using teacher assessment the difference in the classes is largest in reading, but there is also a difference in writing. These differences show us what a large leap more children in Lilac class (the L2L group) have made compared with their counterparts in Indigo class. However in the SATs results we can see that although both classes have made excellent progress, when compared with their project achievement based on their performance at Key Stage 1, Indigo class (the comparison group) have made the greatest progress in writing. From this data it would appear inconclusive as to the benefits of the paired learning technique.

Enfield	Hazelbury Juniors	Optional SATs carried out in the summer term 2004 indicated that 66% of the children met or exceed the levels predicted for them in autumn 2003 in mathematics. This result was higher than improvement in writing where 57% of the children met or exceeded their predicted levels. This means that on comparison with other classes the children appear to have roughly caught up in terms of the whole class levels. This is significant as the class had been highlighted the previous year as underperforming compared with their peers.
Enfield	Oakthorpe Primary	Children involved in the talk project made good improvement in their writing, particularly when you consider that 3 points is the average gain for a child over the year. All the children have made points score of 6 and above.
Enfield	Wilbury Primary	The 60 project children improved their writing point scores from an average of 7.9 to 14.9 in the writing SATs. This was well above the average increase in writing scores in the other two comparison classes. Analysis was undertaken using standardised residuals, which for each child looked at the predicted Year 2 level based on the teacher assessments in year 1 and then calculated the difference between this prediction and what was actually achieved. The difference between standardised gain scores was statistically significant at the 0.001 level with the Learning to Learn classes making greater gains, the difference is equivalent to an effect size of 0.76 (in other words an average class using this approaches would move up from 50 <sup>th</sup> to 23 <sup>rd</sup> in a ranked list of 100 classes).

## 4.2 Summary

- A total of 31 case studies were produced reporting schools' investigations for the Learning to Learn in Schools Phase 3 Evaluation (seven from secondary schools, 19 from primary schools, one from a junior school and four from infant schools).
- The focus for schools' investigations was very varied but included approaches such as the use of formative assessment, Circle Time, involving parents, developing pupils' understanding of how they learn, improving talk and collaboration or a range of approaches such as Accelerated Learning, the use of Mind Maps®, Brain Gym® or Multiple Intelligences. Some schools developed their own approaches or developed specific Learning to Learn courses.
- All of the schools report that Learning to Learn has had a positive impact on teaching and learning. Eighteen of the case studies report a measurable impact on pupils' attainment.

## **5 Case study analysis of themes**

### **5.1 *The Teachers' reports – analysing key sections of the case studies***

Key sections from the case study reports were analysed using qualitative data-analysis software (NUD\*IST - Richards and Richards 1995). This allowed the research team to look at the ways in which teachers were describing their projects, in particular, their use of Learning to Learn terminology: the 5 Rs and the list 1 and 2 elements. The sections analysed were the

- project aims,
- the 5 Rs;
- the role of Learning to Learn; and
- the summary of findings.

#### **5.1.1 Analysing the 'Project Aims' section**

Teachers were encouraged to select their project aims from each of the two lists compiled collaboratively by the University team and the Campaign for Learning. Each of the case studies was reviewed for references to the Campaign for Learning's list 1 and 2 aims and objectives (see below).

Analysis showed that there were clusters around the focus on 'the development of confident and capable lifelong learners', 'raising standards' and 'overcoming underachievement and challenging behaviour'.

**List 1:** The research will aim to understand:

- the relative importance of different Learning to Learn approaches in raising standards;
- how the adoption of Learning to Learn approaches impacts on teacher motivation and capacity to manage change; and
- whether, and if so how, Learning to Learn approaches support the development of confident and capable lifelong learners.

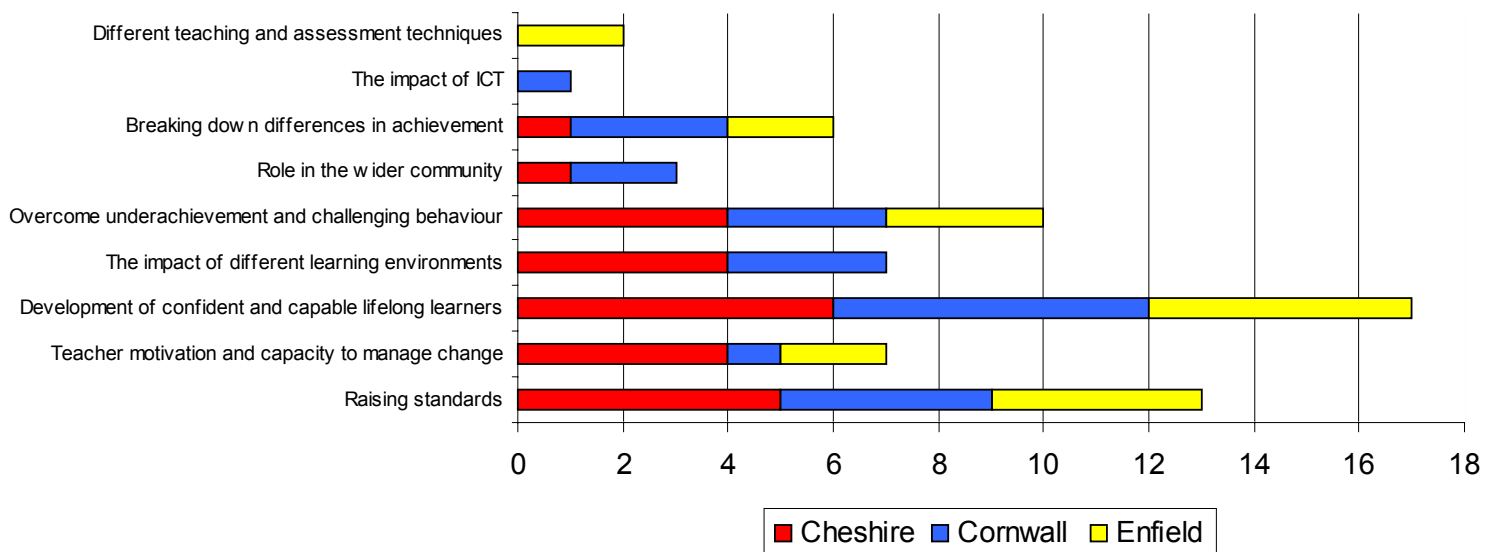
**List 2:** In addition the research will aim to understand:

- whether, and if so how, Learning to Learn approaches can help break down differences in achievement within schools;
- whether, and if so how, Learning to Learn approaches can help overcome underachievement and challenging behavior;
- the impact of different leadership approaches in supporting Learning to Learn;
- the role and impact of ICT in supporting Learning to Learn and vice versa;
- the nature and impact of different learning environments on achievement and the teaching and learning approaches that best support them;
- the role of assessment in developing Learning to Learn and how Learning to Learn can best be assessed; and
- the role of the wider school community, out of school hours learning and family and community learning in supporting Learning to Learn.

**Table 4: Project aims**

<b>List 1 and 2 elements</b>	<b>Number of projects</b>
<i>Raising standards</i>	14
<i>Teacher motivation and capacity to manage change</i>	7
<i>Development of confident and capable lifelong learners</i>	16
<i>Breaking down differences in achievement within school</i>	6
<i>Overcome underachievement and challenging behaviour</i>	10
<i>Leadership</i>	0
<i>ICT</i>	1
<i>The impact of different learning environments</i>	7
<i>Assessment</i>	2
<i>Role in the wider community</i>	3

However, the majority of schools chose more than one element, with only four schools focusing on a single target. The goal of raising standards seemed to make a natural link with developing lifelong learners for nine schools. Eight more schools added tackling underachievement and challenging behaviour to these elements, while five other schools linked eradicating differences in achievement to standards and lifelong learning. Another significant cluster was the association, by five schools, of environmental elements with developing lifelong learners



**Figure 1: Analysis of List 1 and 2 aims**

There were some differences across LEAs, shown in the graph above, for example no school in Enfield chose to examine learning environments or the schools' role in the community.

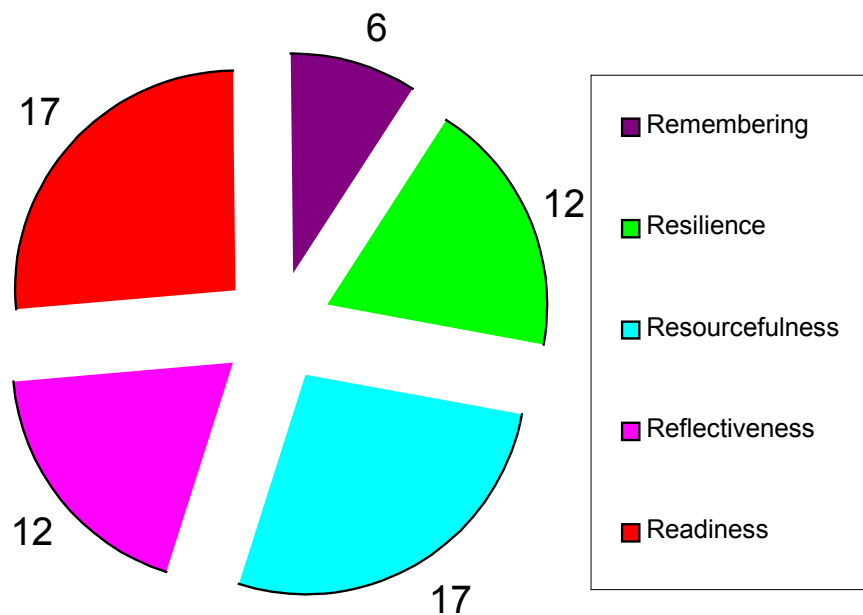
## 5.1.2 Analysing use of the Five Rs



Figure 2: Campaign for Learning 'Five R' structure

This analysis refers to the use of the Campaign for Learning's 5Rs<sup>3</sup> in describing the project (outlined above), the underpinning dispositions that teachers were developing and the changes observed in the children in these dispositions. The focus of the different projects, as indicated on the front page of the case study, was fairly equally spread (as can be seen in the pie chart below). The most popular focus was, jointly, on readiness and resourcefulness, with resilience and reflectiveness focused on by 12 schools each, with remembering being the least common.

<sup>3</sup> While taking full responsibility for this model, the Campaign acknowledges with gratitude the work of Guy Claxton, Alistair Smith, Bill Lucas and Toby Greany on which it is based.



**Figure 3: Focus of case studies across the 5Rs**

We compared the identification of the 5R focus for the individual project with the use of these terms in the body of the report (table 6 below). Interestingly, the most frequently identified Rs – resourcefulness and readiness – are outstripped by references to reflectiveness in the text of the case studies, indeed reflection is the only idea which is more frequently represented in the text than in the identified focus.

**Table 5: Number of schools using the five Rs**

	Resilience	Remembering	Resourcefulness	Reflectiveness	Readiness
<i>On the front page</i>	12	6	17	12	18
<i>In analysed text</i>	7	2	9	16	8

Further analysis indicates that particular project aims are more likely to be linked with specific Rs: schools focussing on the development of lifelong learners or the role of different learning environments tend to mention resourcefulness and reflection, while the goal of raising standards is

linked to readiness as well as reflection. The aim of tackling underachievement and challenging behaviour draws on all the Rs, suggesting that the causes are perceived by teachers as more complex and needing multiple approaches.

### **5.1.3 Analysing 'The Role of Learning to Learn' section**

This section of the report asked teachers to reflect on the ways in which Learning to Learn ideas had changed their own thinking, had shaped the research or had influenced the wider practice of teaching and learning in their school. For some schools, this opportunity to reflect on the ideas and the process was seized on enthusiastically, with eleven schools providing sections classified as discursive or extended. For some schools, this section was extremely brief and it will be interesting to explore whether future reports contain more reflection on the role of Learning to Learn, or whether these teachers prefer not to reflect in this format.

	Terse <10 text units	Brief 10-19 text units	Discursive 20-29 units	Extended >30 text units
N. reports	12	7	5	6

Average text units =17.5 Range = 5-53

### **5.1.4 Analysing the 'Summary Findings' section**

The summary findings section contained a great deal of material relating to outcomes for pupils, teachers and schools. This was often appropriately tentative, since the research is at an early stage. For the analysis for this first year of Phase 3, we have focused on the spread of positive findings which have been reported, while next year we will be able to analyse whether other elements which were more speculative initially can be reported with more definite evidence.

Unsurprisingly, the vast majority of reports (27/31) focused on benefits for pupils, often specifically in relation to the project aims but also very frequently referring to wider affective outcomes of increased enthusiasm, motivation and happiness in school. Twenty four reports talked about benefits for teachers and while many of these mentioned improved teaching strategies and classroom interaction a significant number talked about changed views of teaching, of



opportunities to gain new perspectives by working with colleagues within and beyond individual schools in new and challenging ways. Just under half (14) of the reports mentioned benefits at a whole school level, perhaps reflecting the fact that some teachers are working in smaller groups within their settings. These comments tended to focus on the development of coherent whole school approaches, improved teamwork and better school-community relationships as a result of Learning to Learn.

## **5.2 Summary**

- Most schools identified more than one focus for their projects. The main aims were the development of confident and capable lifelong learners; raising standards; and, overcoming underachievement and challenging behaviour. The projects also have a focus on teachers' motivation and capacity to manage change; on the impact of different learning environments; and on breaking down differences in achievement within school. Other themes include the role in the wider community, assessment, and ICT.
- The vast majority of reports (27/31) identified benefits for pupils particularly relating to specific project aims but also wider affective outcomes in terms of increased enthusiasm, motivation and enjoyment in school.
- Twenty four reports identified benefits for teachers (such as improved teaching strategies and classroom interaction or benefits professionally in terms of gaining new perspectives by working with colleagues or working in new and challenging ways.
- Just under half (14) of the reports mentioned benefits at a whole school level, such as the development of whole school approaches, improved teamwork and better community relationships as a result of Learning to Learn.

## 6 Cross project data collection

As previously stated, in each case study the teachers were encouraged to use a range of methods; the team recommended at least three different data collection tools and to include both qualitative and quantitative methods taking into consideration both classroom processes and outcomes as well as different perspectives within the context of the study: such as the pupils, teachers and parents. However, in practice, the majority of teachers used more than three sources of data; some as many as eight different kinds.

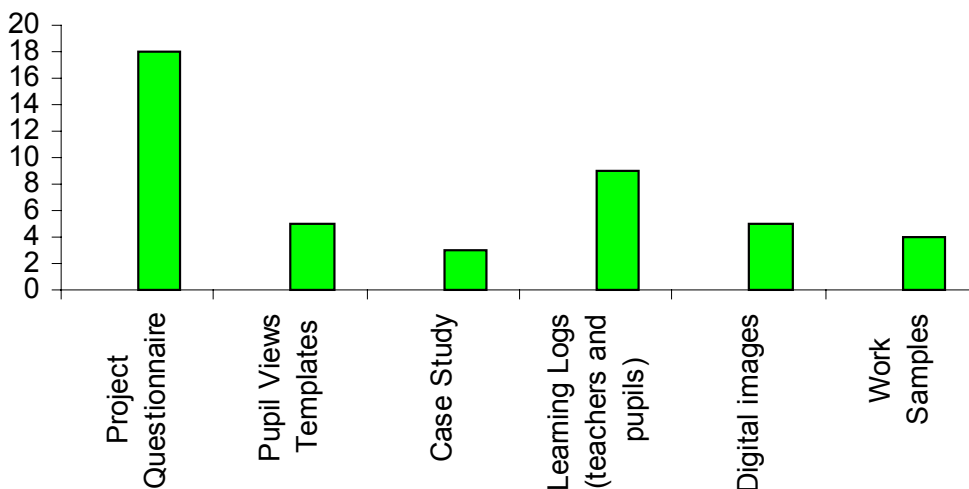
The teachers were supported in their choice of data collection tools and the University team mediated in such a way that cross project themes could be analysed. The different data collection tools can be seen in the table on the next page (Table 7), with the common tools for cross project analysis being shaded and discussed in the rest of this section.

**Table 6: Summary of data collection tools used by schools in their case studies**

		Project Questionnaire	Pupil Views Templates	Case Study	Learning Logs (Teacher & pupil)	Digital images	Work Samples	Observations				Quantitative school data				Interviews			Questionnaires		
								On-Task/Off-Task	Peer informal observation	Questioning	Videos	National Tests (inc. SATS/ GCSEs etc)	Teacher Assessment	Class test scores	Attendance and behaviour records	Teachers	Pupils	Parents	Teachers	Pupils	Parents
Cheshire	Fallibroome High	✓						✓									✓		✓		
Cheshire	John Street Primary		✓		✓		✓							✓			✓				
Cheshire	Leaf Lane Infants	✓	✓		✓	✓						✓					✓				
Cheshire	Over Hall primary	✓			✓		✓														
Cheshire	St Saviour's Infants						✓					✓				✓	✓			✓	
Cheshire	Sutton High	✓										✓			✓					✓	
Cheshire	Winsford High Street (KS 1)		✓			✓			✓								✓			✓	
Cheshire	Winsford High Street (KS 2)	✓			✓				✓												
Cheshire	Wolverham Primary	✓			✓							✓									
Cheshire	Woodford Lodge High				✓				✓			✓			✓		✓	✓			
Cornwall	Alverton Primary (1)	✓		✓																	
Cornwall	Alverton Primary (2)											✓				✓	✓				
Cornwall	Alverton Primary (3)	✓							✓												
Cornwall	Alverton Primary (4)	✓							✓												
Cornwall	Alverton Primary (5)	✓										✓					✓				
Cornwall	Brannel	✓										✓			✓				✓	✓	

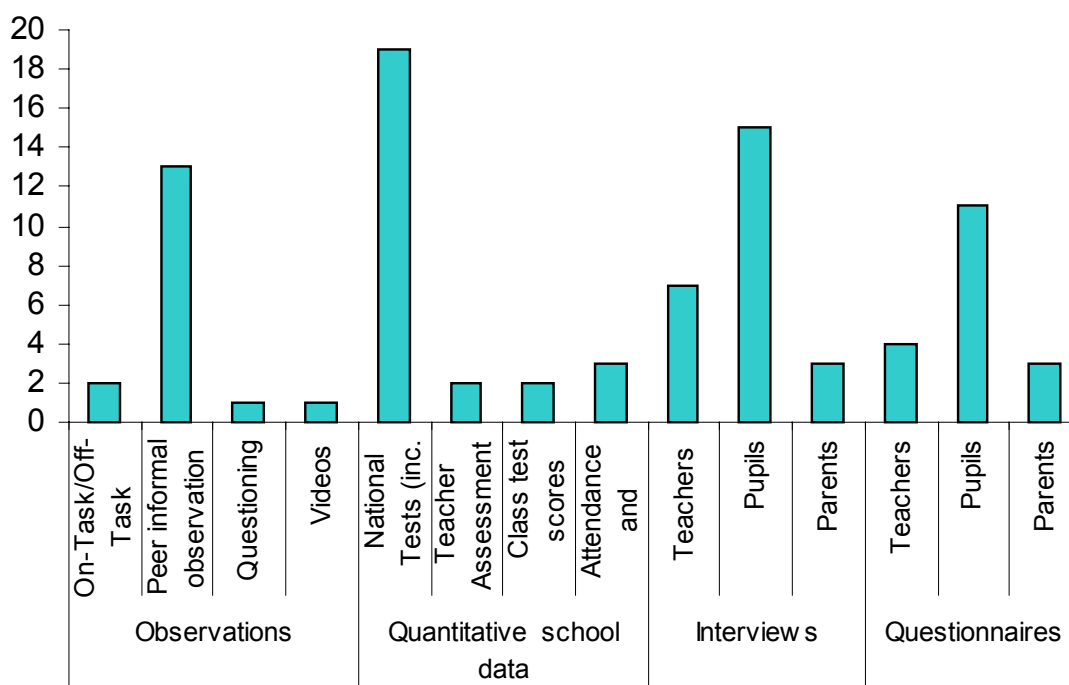
Cornwall	Camborne (1)											✓				✓	✓	✓			
Cornwall	Camborne (2)											✓				✓					
Cornwall	Kehelland	✓			✓												✓	✓			
Cornwall	Lanner Primary					✓			✓			✓				✓				✓	
Cornwall	Pennoweth					✓		✓				✓				✓				✓	
Cornwall	St Meriadoc Infant & Nursery	✓							✓			✓		✓							✓
Cornwall	The Roseland School											✓							✓	✓	✓
Cornwall	Treloweth Primary	✓		✓					✓			✓							✓	✓	
Enfield	Brettenham Primary			✓					✓											✓	
Enfield	Fleecefield Primary	✓	✓						✓	✓		✓	✓								
Enfield	Hazelbury Infants					✓			✓								✓				
Enfield	Hazelbury Juniors	✓										✓				✓	✓				✓
Enfield	Oakthorpe Primary	✓									✓	✓								✓	
Enfield	Raynham Primary								✓								✓			✓	
Enfield	Wilbury Primary	✓	✓		✓		✓					✓	✓				✓				

The graphs below show how this relates to the data collection tools which were identified as common, in other words tools which would have the potential for cross project analysis. Eighteen schools completed the project questionnaire (Appendix 1), thus making it, as planned, one of the more comprehensive research methods; although there were some concerns regarding the suitability of the questionnaire for younger pupils (particularly in Reception and Key Stage 1 classes) and to its accessibility online for some schools for technical reasons.



**Figure 4: Common data collection tools across the case studies**

Schools have access to a substantial amount of data that is collected routinely and the teachers were encouraged to use these data wherever possible. As might therefore be expected, attainment data and informal peer observations are commonly included in the action research accounts; however, the relative importance placed on the pupils' perspective, whether through interviews or questionnaires is also an important aspect of many of the research projects. The latter element corresponds with the significance placed on the pupils' role in the teachers' perceptions of the characteristics of Learning to Learn.



**Figure 5: Cross case study use of questionnaires, observations, interviews and quantitative data**

In this section of the report, we describe the themes arising from:

- the project questionnaire, surveying pupils' attitudes to school and learning;
- data collection methods examining pupil views;
- the use of learning logs, both by teachers and pupils; and
- classroom observations.

### **6.1 Project questionnaire**

A questionnaire was developed with the Campaign for Learning to be used as a common research tool across the project schools (within the case studies it is referred to as the Project Questionnaire). It asks questions such as "I know what to do when I get stuck" and asks for responses on a 5 point scale (from 'always' to 'never'). It was piloted in July 2003 and used by schools in Autumn 2003<sup>4</sup> and Summer 2004 (a copy of the questionnaire is included in Appendix

<sup>4</sup> A number of schools completed the questionnaire at slightly different times according to their research needs.

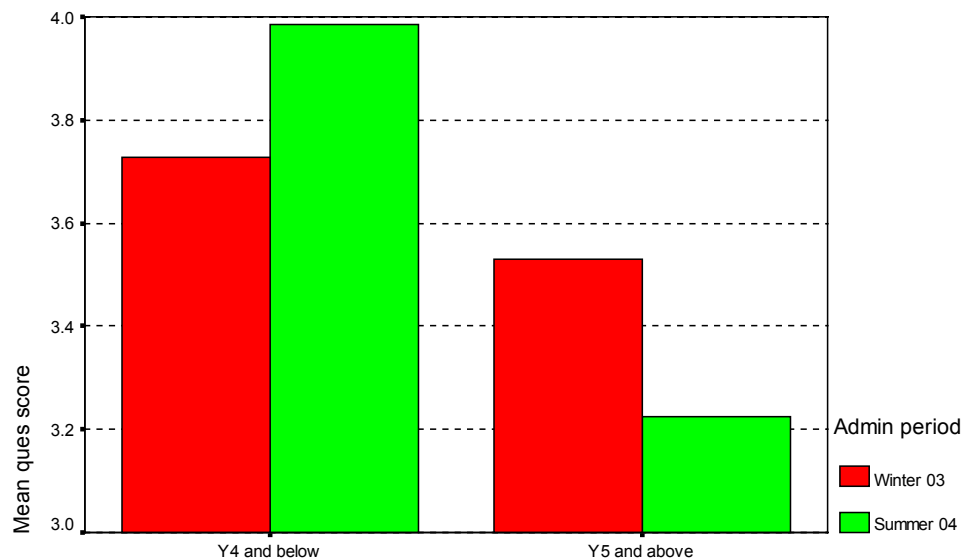
1). Two versions were developed: one with 32 items for younger pupils in Year 4 and below and one with 40 items for pupils in Year 5 and above. The two versions have high internal reliability (and alpha on 0.95 for the 32 item scale and of 0.96 for the 40 item scale).

The questionnaire was designed to be used online, though technical difficulties in some schools meant that a paper version was also used. The aim was for schools to use the questionnaire to track pupils' attitudes over the course of a year for their individual action research projects as well as contributing to an increasing set of data about learners' perceptions of their learning over the three years of the project. 18 of the project schools used the questionnaire and reported the analysis (which is also available online<sup>5</sup>) in their case studies. A total of about 1,800 pupils completed the questionnaire.

Some general findings have emerged from an initial analysis of the questionnaire data. It is clear from the general decrease in scores with age that younger pupils tend to be more positive in their reported attitudes. The graph below shows a drop in pupil attitude from the first to the second administration of the questionnaire for the older pupils (Y5 and above:  $n = 1271$ ), and an increase in pupil attitude for the younger pupils (Y4 and below:  $n = 538$ ). These differences were statistically significant (for Year 4 and below ( $t = -5.65$ ,  $p < 0.001$ ); for Year 5 and above ( $t = 11.40$ ,  $p < 0.001$ )).

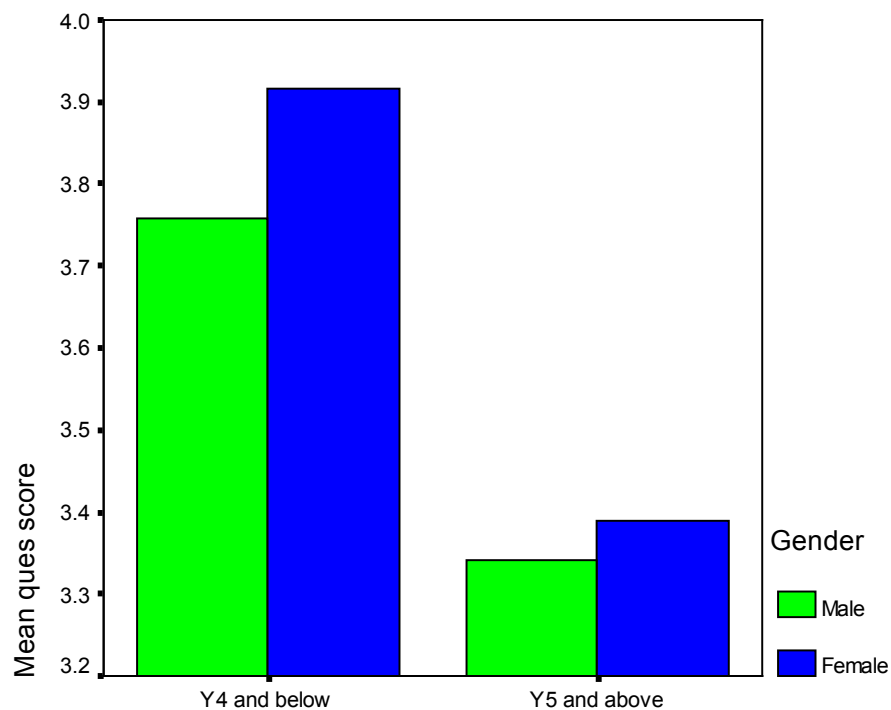
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<sup>5</sup> [www.ecls.ncl.ac.uk/12/](http://www.ecls.ncl.ac.uk/12/)



**Figure 6: Mean questionnaire score**

The following graph shows that in general girls had more positive attitudes than the boys. An independent t-test found this difference to be significant for the younger pupils ( $p < 0.01$ ), but not the older pupils.



**Figure 7: Analysis by gender**



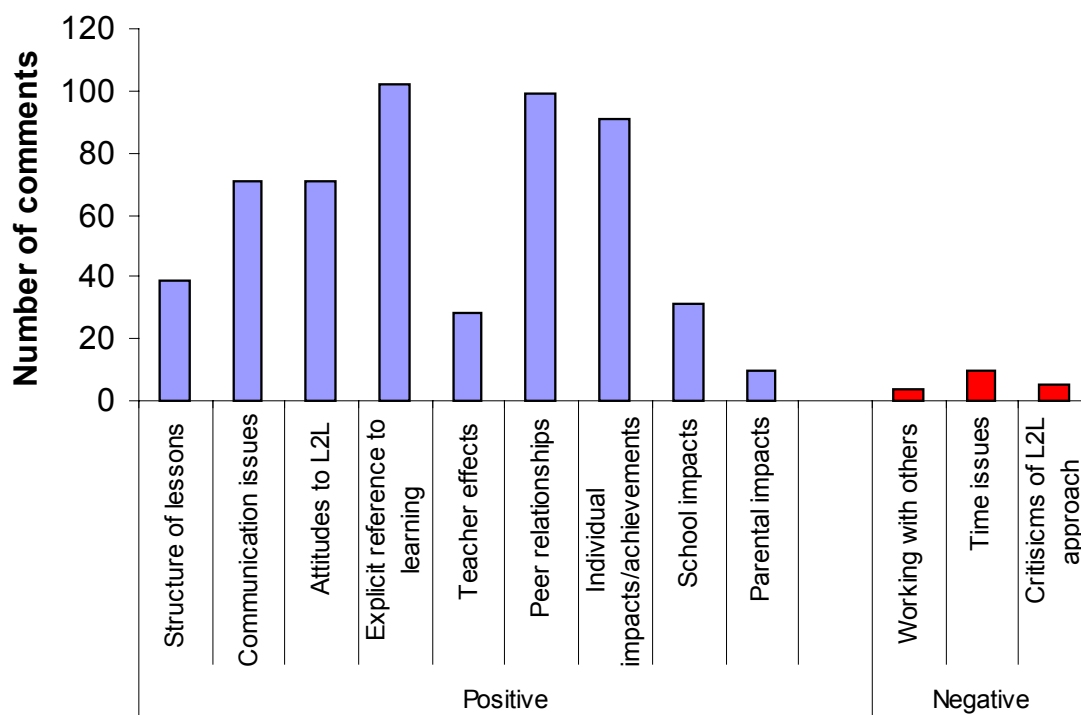
## **6.2 Pupil views**

As part of the telephone interviews, reported in section 7, the pupils' perspective has emerged as an important aspect of a Learning to Learn ethos in schools. It was also an aspect which was frequently examined by the teachers as part of their action research projects. Data collection tools used to investigate this aspect included questionnaires, interviews and pupils views templates. Firstly the quotes from questionnaires and interviews will be examined and then the data from the pupil views templates.

### **6.2.1 Interview and questionnaires: pupil perspective**

Quotes from pupils gathered through the use of interviews (used in 14 case studies) and questionnaires (in 10 case studies) analysed and investigated for common themes and trends. A total of 624 text units were analysed.

Initially the text units were sorted into broad categories, including comments relating to the structure of lessons, the role of communication and working with peers, explicit mention of learning and attitudes to learning, teacher effects and individual impacts. The results are shown in the graph below.



**Figure 8: Main themes of pupil quotes**

As can be seen in the graph above many pupils have been reported as making explicit reference to learning within the interviews and questionnaires (102 text units). Within this category many of the comments were seen to refer to the ‘skills of learning’, many of which were related explicitly to subject content, for example,

- elements which have helped them to achieve specific learning targets;

“I stop after every paragraph and check that I have used the linguistic techniques I wanted to use.”

Brannel School, Cornwall

- occasions when they have helped themselves achieve proficiency;

“I think I could have done better. Next time I will concentrate more.”

John Street Primary School, Cheshire

- and the different skills which they know to apply in different learning situations.

"It helps me because if I forget how to do something I can look back in my log to find out."

Kehelland Village School, Cornwall

Where pupils explicitly mentioned learning they also made comments relating to the ethos of the learning environment. This often referred to the teacher, but the recurrent theme was that pupils perceived that Learning to Learn had created a specific kind of culture within the school. Comments within this category focused on aspects such as a climate where it was acceptable to fail:

"I just have a go...it doesn't matter if you get it wrong 'cos you are just learning it."

Wilbury Primary School, Enfield

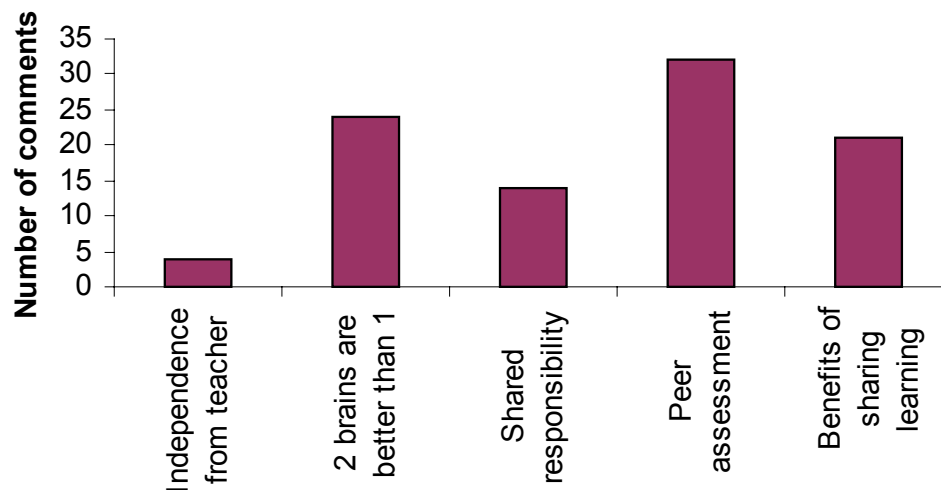
Where learning was focussed on and became the pupils' responsibility:

"A positive aspect was being treated more like adults and having responsibility."

Lanner Primary School, Cornwall

Many of these comments linked to statements made by teachers within the telephone interviews (reported in section 6). However, fewer comments than might have been expected were explicitly concerning knowledge about learning, how learning knowledge could have an impact and the explicit teaching of learning. This contrasts with some of the implications arising from the interviews with teachers where these aspects of 'learning process' were rated highly as characteristics of a Learning to Learn pupil. Perhaps this is a feature of the first year of a three year investigation: the climate or ethos is noticed by the pupils and they feel more confident about specific learning skills, but the transfer of these aspects and the ability to talk about the learning process and their knowledge about learning will take longer to develop. However this could also be due to the specific questions being asked by the teachers in interviews and questionnaires; the learning process is difficult to probe, and wider use of the pupil templates (reported below), which support talk about metacognition may assist this.

Talk is clearly perceived as a central aspect of Learning to Learn. Two categories of comments, communication and peer relationships, were frequently highlighted by the pupils as important. Skills of communication, speaking and listening, were repeatedly apparent, while the outcomes of this collaboration were clear. Over 40 text units related to the benefits of collaborative learning, these were categorised further (see figure 10).



**Figure 9: Categorisation of comments related to 'talk'**

Many pupils talked about the benefits for talking about and assessing each others work:

"My partner helped me by making me feel good.' 'By saying what was nice about my work."

Wilbury Primary School, Enfield

They also frequently cited how much they achieved when learning collaboratively and the benefits of this process:

"In teams you get more time to think then talk about the answer with your face or shoulder partner and discuss as a team so you do get a lot of time to think."

Fallibroome High School, Cheshire

"...when you told your partner you felt you weren't alone..."

Hazelbury Junior School, Enfield

The third most common trend was the specific benefits which the pupils cited this provides evidence that Learning to Learn has improved:

- their self esteem and self efficacy;

"It has taught me there's more to do in my life than what I do. I can always improve a little bit more. You only have one life, there's not much point in wasting it. My mum says never give up."

Brannel High School, Cornwall

"I feel proud of myself."

Leaf Lane Infant and Nursery School, Cheshire

- their ability to assess their own progress and achievements; and

"Instead of having to think about question words, they are there. Can get letters the right way around."

St Saviour's Infant and Nursery School, Cheshire

- in making them better learners.

"Getting to do it ourselves rather than being told what to do and how to do it."

Lanner Primary School, Cornwall

### **6.2.2 Pupil views templates**

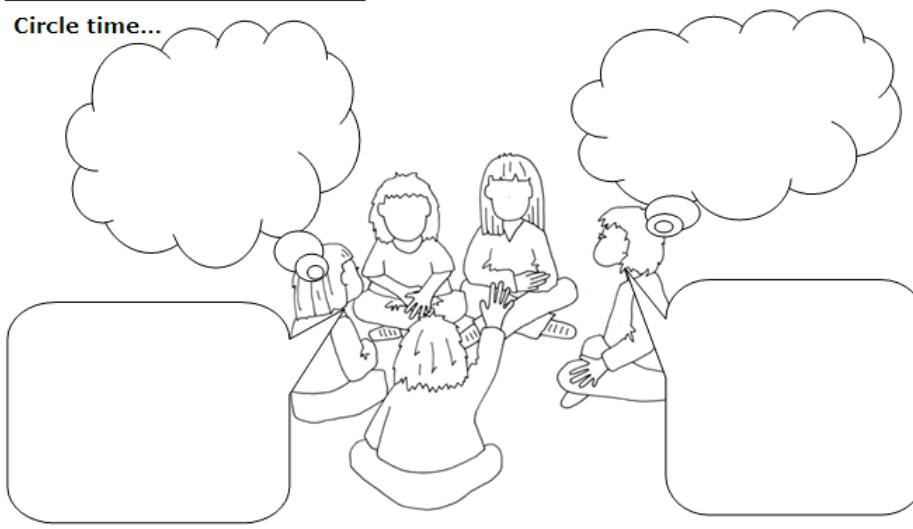
The pupil views templates have been developed as a tool for gathering pupils' perceptions about metacognition (Wall and Higgins 2004). This method aims to gather information on pupils' attitudes and beliefs about teaching, curriculum content and school/classroom structures (the process of teaching), but also to go further into the realms of metacognition (the process of learning). This is done through the use of the speech and thought bubbles (see figure 11 for example template). The thought bubble is intended to look at the 'internal' processes: the learning of the individual - 'what is going on inside their head' (metacognition). In contrast, the speech bubble looks at factors external to the individual: the learning of other pupils, teachers and parents and practicalities of learning in the specified context (cognition in general). An overlap between the two fields is expected with regard to advantages and disadvantages and subject differences: the impacts on the learning of themselves and others. Therefore, the template can be seen to bridge the world between the


concrete and the more abstract; in this sense it is a mediating tool.

Pupil Response Record – Circle time

Name:
Age:

**Circle time...**



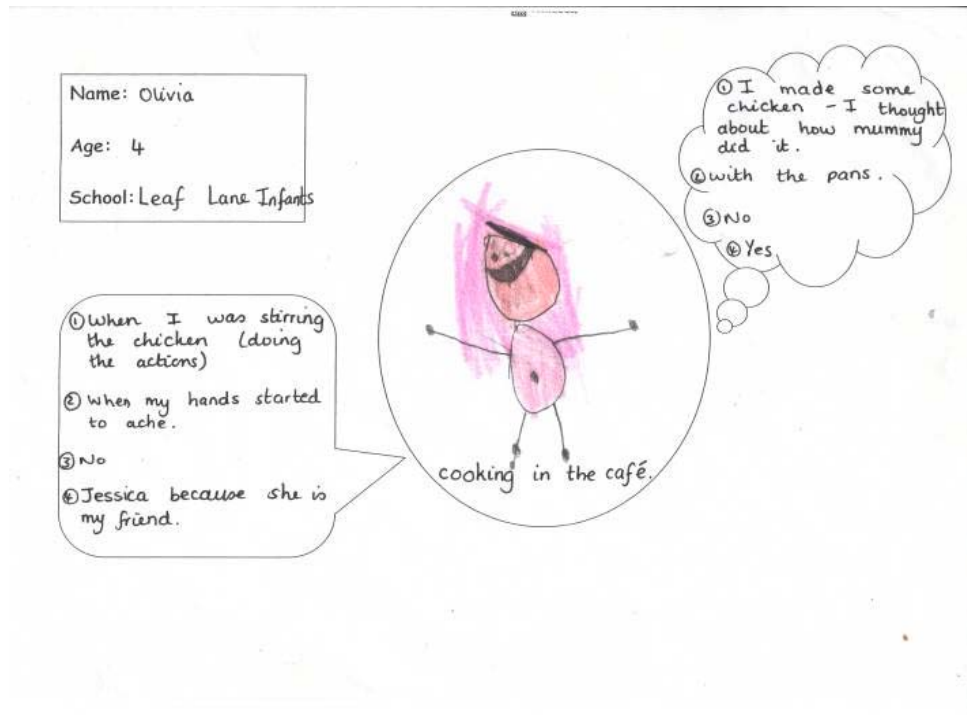
 University of Newcastle

Circle.doc – Copyright 2004

**Figure 10: Example of a pupil views template**

This data collection tool was used by five schools; all within the primary age phase. These schools used the tools to explore the perceived learning which was linked to paired talk (Fleecefield Primary), formative assessment (Wilbury Primary School), Circle Time (Winsford High Street Primary – Key Stage 1), development of generalisable learning skills in PE (John Street Primary School), and reflection (Leaf Lane Infant and Nursery School).

Analysis of the templates indicates that children involved in Learning to Learn are more aware of the process of learning. This is apparent in even young children's responses to the work they had been doing. For example in the template below the child in Reception (4 years old) has talked about how she has thought about how her mum does the cooking and used that to base her own cooking at school. She is aware of her thought process around this activity.



**Figure 11: Pupil views template from 4 year old pupil**

A further example which demonstrates this comes from the experimental research design at Fleecefield Primary School, where responses of pupils taught in Learning to Learn classes can be compared to those of pupils in a comparable class where these strategies were not used (see figure 12).

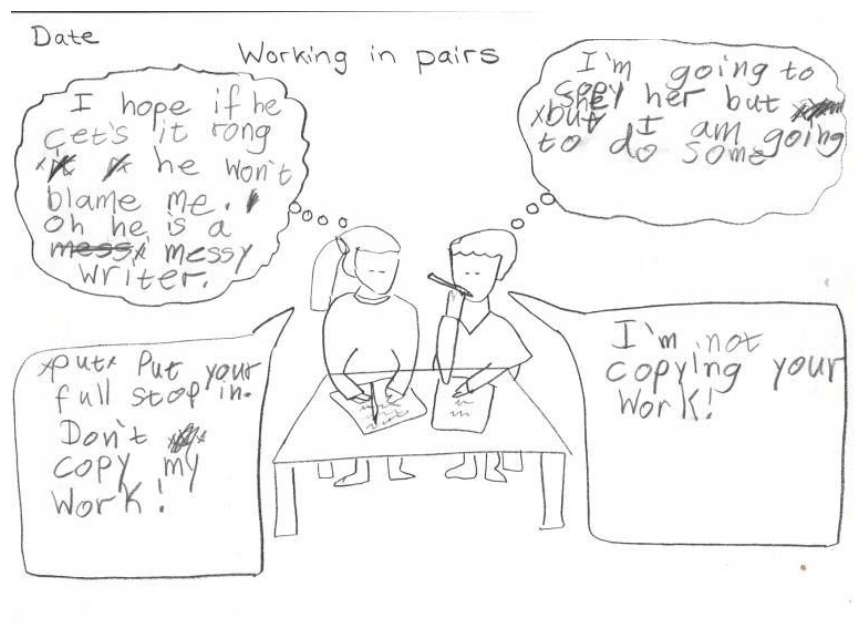


Figure 12: Templates comparing perceptions of a child using L2L (bottom image) to a child in a comparison class



The teacher gave out the templates to both classes in the afternoon after they had been taught a lesson with the same learning objectives: one taught using paired learning strategies and one without. The pupils were then asked simply to complete the templates to show what the pictured pupils, if they had been part of their morning lesson, were saying and thinking. The results, examples are shown in figure 13, show the pupils in the class where paired learning was not used were more outcome orientated and were more likely to include comments which were off-task, whereas the pupils in the Learning to Learn class made more process orientated annotations.

At Wilbury Primary School the templates showed how pupils in Learning to Learn classes were more accepting of everyone, including the teacher, being a learner and that there was always room for improvement. The role that collaboration and talk about learning had in classes where formative assessment strategies were used was just not perceived in comparison classes, here, collaboration was perceived as copying (see figure 14 below).



**Figure 13: Template from a child in a comparison class at Wilbury Primary School**

### 6.3 Learning Logs

Learner logs or learning diaries were a popular research tool, used by nine schools. Three schools used pupil learner logs alone, one school used teacher logs and a further five schools used both teacher and pupil logs. Teacher logs tended to be used as a monitoring device, tracking the content of lessons, recording reactions to particular lessons and monitoring the progress of the research. Teachers tended not to use these as reflective tools or 'research diaries'. Pupil logs, in contrast, had a strong reflective element and were often explicitly used as ways of developing pupils' awareness of their learning, setbacks and progress.

Pupils' views of logs were important sources of evidence though provoked different reactions in different schools: one school began using logs but abandoned them when pupils said they didn't like doing them, another began using them part way through the project and found them so popular that they wished they had begun earlier! In one school where logs were used as the starting place for discussion about lessons, there was less emphasis on the writing and more emphasis on the ideas. However, content was extremely important in another school where pupils were encouraged to personalise their logs with artwork, diary notes and collage, leading to the logs becoming 'treasured possessions'.

On the whole, the two key points about learner logs are that most of the schools found that they were a good way of measuring children's developing understanding of their learning and that the children enjoyed having a forum to express their views about their learning.

**Table 7: Summary of Learning Log use**

	Teacher/pupil	Purpose	Impact
Wilbury	pupil	Initially unplanned	Evidence of metacognition
Kehelland	pupil	Linking homework, aiding reflection, individual locus of control	LLs become 'treasured possessions', customised, tools in use for reflection and development
High St KS1	Teacher	Tracking pupil progress	
High St KS2	Pupil (small group)	Recording views	Children more independent in views
John St	Teacher and pupil	Prompts for discussion	Children enjoyed and valued having their views aired and respected

Leaf Lane	Teacher and pupil	Children's reflection, teachers views of the process	Children have explicit strategies for reflection and a greater learning vocabulary
Over Hall	Teacher and pupil	Monitoring and evaluation	Unclear
Woodford Lodge	Teacher and pupil		Pupils didn't like it – abandoned
Wolverham	Teacher and pupil		Unclear

## 6.4 Observations

Nearly half of the case studies (16/31) used some kind of observation as a data collection tool. By far the most common strategy was informal observations, which built upon many schools' monitoring procedures. However, as can be seen in figure 15 below, three schools also looked explicitly at on task/off task behaviour and a further two schools looked at questioning strategies. It is important to note that at least one school used more than one type of observation.

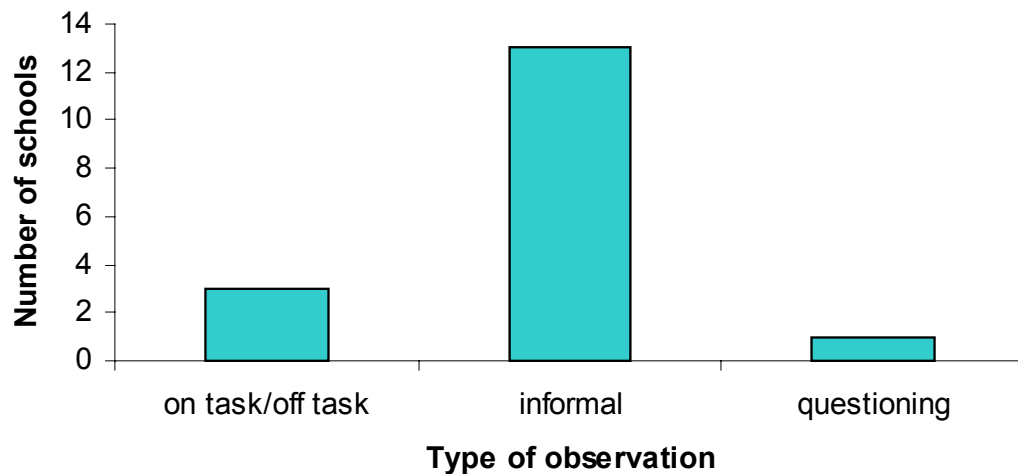
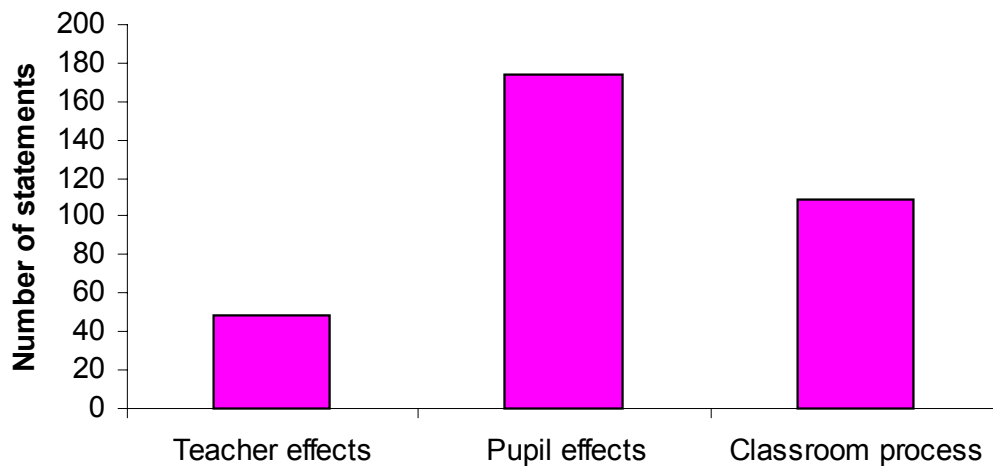


Figure 14: Types of observation used in the case studies

### 6.4.1 Informal observations

Qualitative data analysis software was used to analyse 332 text units regarding findings from informal observations (QSR's NUD\*IST- Richards and Richards 1995). Initially these text units were coded regarding whether the statements related to teacher effects; pupil effects; or classroom processes. The differences can be seen in figure 16: pupil effects were most commonly observed,

possibly reflecting the importance placed by the teachers on this area of study, while classroom processes was second and the teacher effects were least likely to be commented on.



**Figure 15: Categorisation of observation statements according to focus**

Within the statements linked to pupil effects there were a number of common trends which emerged (see figure 17). Most commonly mentioned was the link with motivation which was perceived in the observations. This appeared in over half the reports which used observations as a data collection tool. For example, teachers commented,

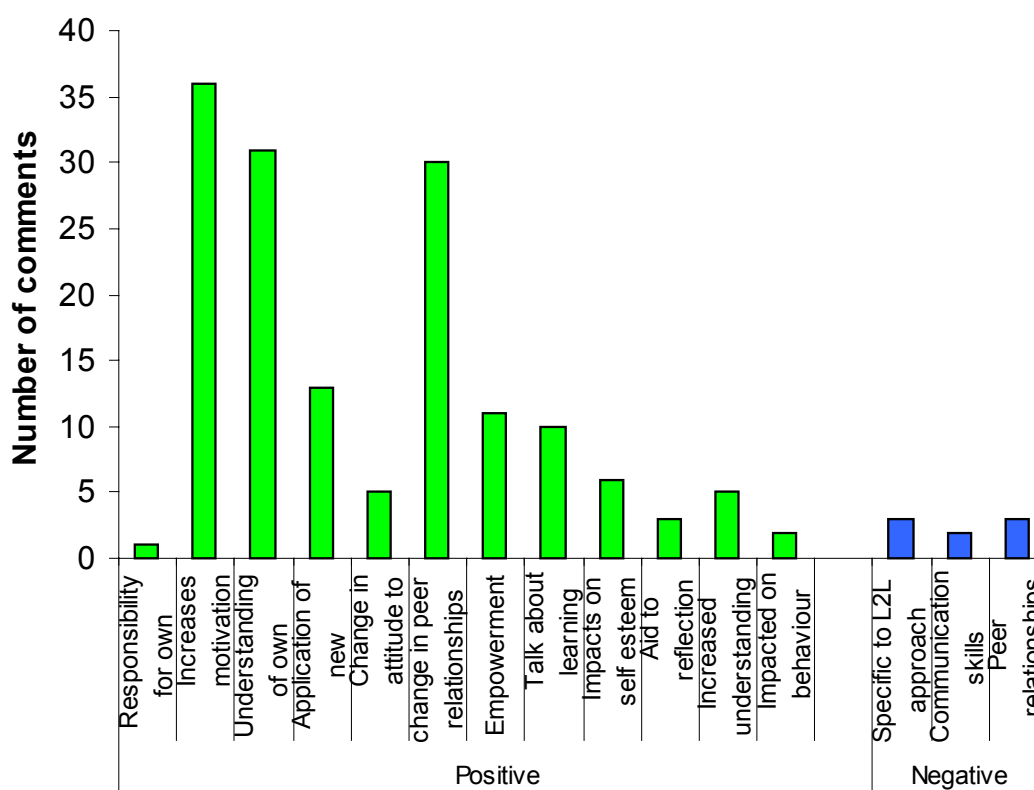
“Observation of the class indicated that children had become more motivated in their own learning. Over the year they appeared to become less reliant on the teacher to direct their learning and keep them focussed and on task.”

Woodford Lodge High School

Another teacher observed changes in pupils' self esteem:

“I thought that this morning was one of the best I had spent with my class as they all rose to the challenge so well and all felt so positively about themselves and one another at the end of the session. Their self-esteem was higher than it had felt in a long time and this obviously influenced how I felt. Something I have learnt is that self-esteem can reflect on others and if others are feeling good about themselves, this can affect the person with them.”

Alverton Primary School



**Figure 16: Observed pupil effects: common trends**

Observations were also found to commonly reveal changes in the pupils' perceived understanding of their own learning. Within this category comments centred around the idea of talk about learning and understanding of the different related vocabulary:

"The children could discuss their learning needs in terms of their learning style and they knew which teaching strategies best suited them."

Winsford High Street Primary School (Key Stage 2)

"Observations of the class indicated that children were using correct terminology to describe achievements."

Hazelbury Infant School

The third most common comment regarding the pupil effects was related to peer relationships. This was seen within Learning to Learn lessons:

"It was evident from teacher assistant observation notes that the majority of pupils kept on task, were keener to continue with their work even during break periods and

learnt to solve their own problems and collaborate more effectively.”

Lanner Primary School

And outside of lesson time, for example, during breaks:

“These improved communication skills have led to better social interaction within the classroom and at playtimes. The children are treating each other more respectfully.”

Winsford High Street Primary School (Key Stage 1)

Comments classified as ‘classroom processes’ were all related to strategies which had been effective within the framework of Learning to Learn. This included successes and failures as well as adaptations and developments. An example comment from this category gives detailed observations regarding how the different strategies were implemented into the classroom, in this case, the teacher is introducing Jenny Mosley’s Circle Time model to her Year 6 class:

“We discussed the meaning and value of having goals and then set ourselves a goal. Each child had a buddy to help them choose a suitable goal and ways of achieving it.”

Alverton Primary School

With regard to the comments which were related to ‘teacher effect’ these centred around 4 main areas:

- the concept of the teacher learning alongside their pupils, about teaching and learning, about subject content or about themselves
- improvement in their own self esteem and motivation

“The teacher commented on the way in which formative assessment had impacted on her professional confidence and teaching strategies”

Treloweth Primary School

- the achievement of success within teaching and learning; and
- new strategies and knowledge within the field of Learning to Learn.

“The Brain Breaks have also proved to be successful as the children benefit from the chunking of the lesson and over the weeks there has been a noticeable difference in the levels of discussion within the groups.”

Winsford High Street Primary School (Key Stage 2)

It is apparent that most of the teachers in the first year of the project relied on informal observations

and therefore it will be a target to support the use of more quantifiable and systematic observations using the research tools from the project website. Some schools did make use of these more formal schedules, these will be described next.

#### 6.4.2 On task/off task observations

Schools using this type of observation based their data collection around a template provided by the project website. This template is shown below in figure 18. This method requires the teacher to scan the room every two to five minutes and indicate on the schedule the behaviour of five target pupils, whether they are on task or off task.

UNIVERSITY OF NEWCASTLE		<b>SYSTEMATIC OBSERVATION OF INDIVIDUAL PUPILS</b>							
<b>SCHOOL:</b>	Observe the pupils every 5 minutes and record their behaviour at the time	<b>BEHAVIOURS</b>		Tally Chart of Observed Behaviours for 5 focus pupils					
<b>CLASS:</b>				Pupil 1	Pupil 2	Pupil 3	Pupil 4	Pupil 5	TOTAL
<b>DATE:</b>		<b>ON TASK</b>	Talk related to task						
<b>LESSON:</b>			Answering question						
<b>TEACHER:</b>			At work						
<b>SUBJECT:</b>			Listening to teacher/peer						
<b>OBSERVER:</b>		<b>OFF TASK</b>	Talk not task related						
			Wandering around room						
			Attempting to draw attention						
			Day dreaming						
		<b>TOTAL</b>							

**Figure 17: Systematic observation schedule for pupils on task/off task behaviour**

The three schools who used this type of observation all concluded that Learning to Learn approaches improved on task behaviour. In Fleecefield Primary School where an experimental design was used, the pupils in classes where Learning to Learn strategies were applied were more likely to be on task than in the control, for example:

“A marked difference in the two classes was evident from this observation. Indigo Class were choosing to work individually and when they worked in pairs were observed to talk to their partner only once during the whole session, a total of 38 moments for the whole class. They exhibited 14 incidents of off task work or talk and

one child was noted reading a completely unrelated book, rather than the task at hand. Lilac Class was a different story. Here we observed 79 moments of on task, shared talk and only two moments of off task talk in the entire session.”

Fleecefield Primary School

A similar result was found as part of Fallibroome High School’s research where a similar methodology was used: classes using cooperative learning strategies were more likely to be on task.

At Pennoweth Primary School the teachers completed the on task/off task observations at the beginning and end of the school year. Again, results comparable to Fleecefield and Fallibroome, were found. After introducing Learning to Learn approaches the pupils were more likely to be on task:

“Observation of the class indicated that children had become more motivated in their own learning. Over the year they appeared to become less reliant on the teacher to direct their learning and keep them focussed and on task.”

Pennoweth Primary School

### **6.4.3 Observation of teachers’ questioning**

Only one school, Fleecefield Primary School, looked explicitly at questioning as part of their observations. The observation schedule in figure 19 was used to record the data.

Results showed that in Learning to Learn lessons the pupils were more likely to work collaboratively to answer questions and also that there was a more equal spread across the genders in regard to who answered.

“...that both teachers favoured open questions and that in Indigo Class [control class] there was a greater predominance of girls answering the questions. This was not the case in Lilac Class [experimental class] where the spread was fairly equal. Lilac Class also demonstrated evidence of pairs working together to answer a question.”

Fleecefield Primary School



## 6.5 Summary

- Schools used a range of kinds of data in their investigations including much that is routinely collected (such as attainment and informal observations). Many also used further methods such as questionnaires and interviews which were supported by the research team.
- Analysis of the project questionnaire which surveyed pupils' attitudes to school and learning indicates that pupils' tend to report more negative attitudes to learning and school as they get older.
- Analysis of the pupil view templates indicates that children involved in Learning to Learn are more aware of the process of learning. This is apparent in even young children's

- responses to the work they had been doing and is especially evident where schools compared Learning to Learn groups with pupils not using these approaches.
- In interviews and questionnaires pupils showed that they were aware of and valued the climate that Learning to Learn supports. They also acknowledged the value of talking with their peers and collaborating in their learning as well as indicating positive benefits in terms of their self-esteem and understanding of their learning.
  - Pupil learning logs had a strong reflective element and were often explicitly used as ways of developing pupils' awareness of their learning, setbacks and progress. They appear to be a good way of measuring pupils' developing understanding of their learning and most pupils enjoyed having a forum to express their views.
  - Informal classroom observations were widely used and common findings related to pupils' engagement and motivation. More structured observations reported increased time on task or a higher quality of pupil talk.

## 7 Teachers' perceptions of Learning to Learn

An important aspect of the Learning to Learn in Schools Phase 3 Evaluation is the exploration and understanding of what is meant by the term 'Learning to Learn'. To explicitly investigate this aspect we have looked at the project teachers' developing understanding of Learning to Learn: the principles and what happens in practice. We conducted telephone interviews with twenty teachers, to elicit descriptions of:

- a Learning to Learn school;
- a Learning to Learn teacher; and
- a Learning to Learn pupil.

In addition we explored the teachers' views of the collaborative research process between the Campaign for Learning, the University of Newcastle and the teachers in the project schools.

### 7.1 Telephone interviews

An interview schedule (Appendix 2) was devised by the research team with the aim of gathering the main *Learning to Learn* themes as perceived by the participating teachers. It was sent to all the schools in the project prior to the interview taking place. Twenty teachers took part in the interviews: five from secondary schools, ten from primary schools, one from a junior school and four from infant schools. Seventeen of the teachers were female and three male. The interviews were conducted by telephone by a team of staff from the Centre for Learning and Teaching at times arranged to suit the teachers' work schedules during the Summer Term in 2004. Interviews varied in length between 15 and 45 minutes. They were all tape-recorded and transcribed before analysis. The analysis of the transcripts was conducted through an iterative process of theory and construct generation.

#### 7.1.1 What can a *Learning to Learn* pupil do?

The phrasing of this question was intended to imply the use or acquisition of skills. Prior

achievement is a key predictor of subsequent attainment but the main tenet of Learning to Learn is that all pupils can improve their learning by becoming more aware of how they are learning and what they can do to improve it.

The descriptions of pupils by the teachers involved in the project yielded eighteen themes which fall into three broad categories:

- pupils are aware of the process of learning;
- pupils are psychologically prepared for learning; and
- pupils are good communicators.

**Table 8: Key themes about Learning to Learn pupils**

Process	N	Psychologically prepared	N	Good communicators	N
Process knowledge	12	Independence	8	Communication skills	7
Self-evaluating	7	Motivation	7	Work with others	6
Autonomy	6	Reflectiveness	6	Active participation	1
Resourcefulness	4	Resilience	6	Emotional skills	1
Problem solving	1	Adapt to change	5		
Remembering	1	Enjoy learning	4		
		Self-confidence	3		
		Empowerment	2		

Process knowledge is clearly identified as an important factor: children's ability to understand the purpose and nature of tasks is critical to the development of skills for lifelong learning (Ecclestone 2002).

“..to identify the ‘how’ of learning as well as the sort of ‘what’ they have just learned”

Female primary school teacher

“.. that they know how to access materials and information in a whole range of ways, so that basically what we are teaching them is those skills, so that if they don't know about something they can find a way of going back to it”

Female junior school teacher

In terms of psychological preparedness, teachers are particularly concerned with the 'virtuous cycle' of increased motivation, resilience and independence which enables pupils to locate control over their strategies internally and to deal with failure in terms of problem-solving rather than as a reflection of themselves as inadequate (Dweck and Leggett 1988)

"They reflect on their learning, they self evaluate and really think on improving as well and on what they've learned and also that resilience, so the fear of failure isn't there, the fact that I've made a mistake means I'm learning something so that takes it forward"

Female primary school teacher

"Keep going, keep trying. Knows where to get help. Thinks of themselves positively as a capable learner – self esteem – approach in a positive way, not being fazed by new ideas – thinking 'I could have a go at that'"

Female primary school teacher

Communication is a third key issue: pupils are seen as actively engaging in learning through debate, questioning and discussion.

"Communicate effectively and again in different situations because the key to any learning is to be able to communicate... to be able to work with others and realise they can learn from others and with support of others"

Female infant school teacher

"It's about kids exploring ideas and presenting their own ideas in way which is right for them. So encouraging children to experiment in the way that they present, not necessarily expecting a piece of written work at the end of an experiment, saying what about... a presentation, a PowerPoint display, a Mind Map®, a conversation with a friend, a conversation with your parents, it's about a range of different ways that children can embed and show that they know"

Male secondary school teacher

What becomes clear from these descriptions is that teachers involved in the Learning to Learn project are not keen to have classes of passive recipients, rather that they are hoping that pupils,

as a result of their engagement in the project, will take more active roles, more individual responsibility for their learning. This has important implications for what a Learning to Learn teacher will have to do and what a Learning to Learn school would feel like to work in.

### 7.1.2 What do you think are three key things a L2L teacher does?

When asked about their own role as a Learning to Learn teacher and what they would expect in a colleague following a similar philosophy a number of interesting themes were apparent. Within this section of the analysis 12 different types were identified and they were categorised into three broader groups:

- relationships with pupils;
- aspects of the process of learning; and
- environmental factors.

**Table 9: Key themes about Learning to Learn teachers**

Relationship with pupils	N	Process	N	Environmental	N
Involvement of all	15	Learning alongside pupils	8	Positive environment	10
Listen to pupils	7	Planning	4	Explicit teaching of L2L skills	7
Role model	2	Talk about learning	4	Recognition of L2L	1
		Creative	2		
		Team player	1		
		Resourceful	1		

Teachers clearly identified involving *all* pupils and staff as an important aspect of Learning to Learn. This included being adaptable to pupils' needs, in particularly the different approaches to learning needed in any one class.

"It's someone who considers the whole child, so that you're looking at the environment, everything that is happening to them and considering all aspects of that."

Female primary school teacher

This responsibility for involving pupils is strongly linked with a commitment to listen to pupils and to engage positively with talk about individual learning and Learning to Learn approaches.

“Involving the children in the process of learning is absolutely essential, if the teacher is not doing it to the children. The children are involved in the process and asking for their thoughts and their opinions and their reflections and evaluation, all along the way.”

Female primary school teacher

The theme of the teacher as co-learner is prominent, both in terms of leading by example and in relation to the constant re-assessment of their practice and impact.

“They are also the lead learners, they can still see themselves as learners, but the *Learning to Learn* teacher is learning as they go on, they model that learning”

Female primary school teacher

“They’ve got to be reflective and evaluative regarding their own practice, so they can see how to move on.”

Female secondary school teacher

### **7.1.3 What is a *Learning to Learn* school like?**

Descriptions of Learning to Learn schools are perhaps more difficult for the interviewees to construct, since at the start of the project, many teachers were working only with their teaching partners within the school. As work has progressed, many schools have taken up Learning to Learn as a co-ordinated approach to continuing professional development and school improvement. It seemed very timely, therefore, to ask what the defining characteristics of such a school might be, as the schools begin to develop. These are less descriptions of what is, therefore, than plans for what will be.

There were twenty-two descriptors that we have divided thematically:

- school culture;
- pupil input; and
- staff input.

**Table 10: Key themes about Learning to Learn schools**

<b>School culture</b>	<b>N</b>	<b>Pupil input</b>	<b>N</b>	<b>Staff input</b>	<b>N</b>
Focus on teaching and learning	8	Pupil involvement/ responsibility	6	Variety of styles and approaches	5
Open to change	6	Pupils take risks	6	Use research	4
Increase pupil motivation	4	Pupils reflective	5	Self-evaluate	3
Everyone is a learner	3			Common approach/ teamwork	3
Lively/ stimulating	3			Positive relationships	4
High aspirations	2			Broad rich curriculum	1
Good physical environment	2			Clear vision from Head	1
Parent involvement	1			Explicit cross-curricular links	1
Raise standards	1			Creativity	1
Boost teacher morale	1				

‘Culture of learning’ is the strongest theme: schools in the project are positively seeking out change and innovation in order to develop learning.

“I think you have to be open to change first of all, and I think it’s also about being open to challenges and new forms, new ways of learning, the teachers and the children.”

Female primary school teacher

“I kind of thought you’re open to new ideas, you know that you’re enquiring to carry out that research. Then I thought that you were committed to learning at all levels, that included staff as well as students and that you’re interested in the individual and how they learned and how they could maximise their potential.”

Female secondary school teacher

Traditionally, innovation and change in schools has been conceptualised as coming from management and from teachers in a top-down process. One of the interesting findings from these interviews is that Learning to Learn teachers have a view of schools as arenas of change and experimentation where pupils take an active role.

“Focusing not just on teacher action but full involvement of pupils.”

Female primary school teacher

“That pupils understand that their learning is their responsibility in partnership with teachers, not just the teacher’s responsibility... that staff and pupils, all of us are open



to research and change to challenge our creativity”

Female secondary school teacher

In terms of staff input there is an important marriage of common aims with diverse means: there is a positive support for interdisciplinary and multi-age working, with clearly agreed principle but this is joined to a recognition that achieving these aims must be underpinned by a variety of approaches that encourages diverse learners and supports engagement and motivation.

“I would say teachers should be aware of the *Learning to Learn* projects, all teachers in the school, secondly cross-curricular links, thinking skills, incorporated in schemes of work throughout the school, embedded in the teaching and learning process at the school.”

Male secondary school teacher

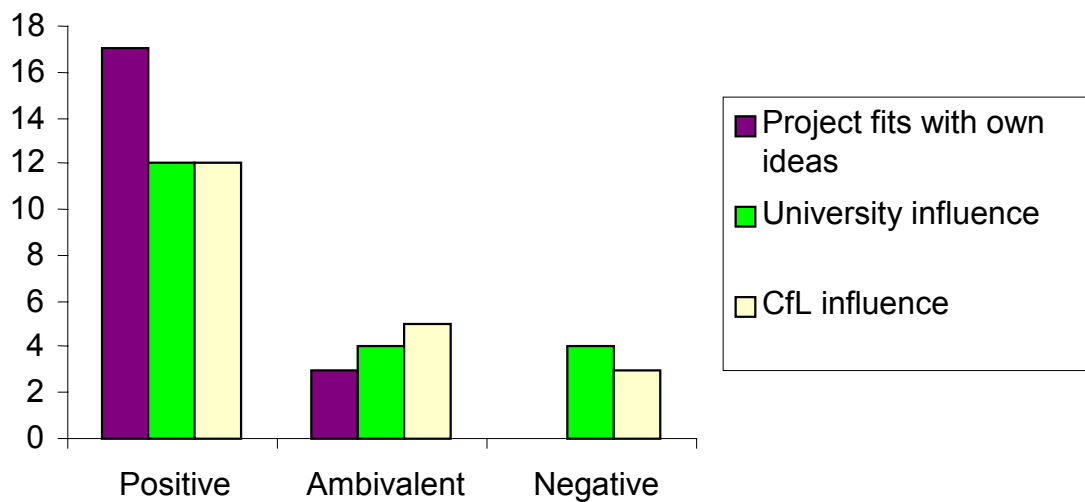
“...to provide I think a broader rich curriculum, an exciting curriculum for the children... flexibility of approaches to teaching and understanding of the needs of children... and having a rapport through understanding, you have a rapport and a relationship and the ethos of the school, the vision of the Head is all included in that”

Female primary school teacher

#### **7.1.4 What is the process of Learning to Learn like?**

The teachers were also asked a series of questions which were designed to investigate some of the affective elements of being involved in action research: the extent to which reality and teachers’ visions had overlapped, how much independence and control teachers felt they had over their projects and relationships which had developed between the schools, the Campaign for Learning and Newcastle University.

One of the key tensions this project has been supporting the teachers’ autonomy in designing research which fits their practice and their context, while at the same time developing a project-wide coherence about Learning to Learn. Three of the questions were designed to address this: the extent to which the individual project fit within the teachers’ ideas of Learning to Learn and the extent to which teachers felt that the University or the Campaign for Learning were shaping their understanding of Learning to Learn.



**Figure 19: Teachers' perceived autonomy as part of the project**

While, as figure 19 above indicates, teachers were confident that their projects and Learning to Learn were coherent, there was no clear link between this and the extent to which they felt their ideas about Learning to Learn were influenced by the University, by the Campaign for Learning or themselves.

## 7.2 Summary

- Telephone interviews were conducted with twenty teachers, to investigate perceptions of a Learning to Learn school; a Learning to Learn teacher; and a Learning to Learn pupil.
- The teachers interviewed identified a number of common features of Learning to Learn pupils which fell into three broad categories. These were that Learning to Learn pupils are aware of the process of learning; Learning to Learn pupils are psychologically prepared for learning; Learning to Learn pupils are effective communicators.
- The description of an Learning to Learn teacher produced 12 different themes which were categorised into three broader groups: Effective relationships with pupils; Process features (such as talking about learning) and Environmental factors (such as setting effective conditions for learning).
- There was less of a consensus about in teachers' descriptions of a Learning to Learn

school, though the responses can be categorised in terms of school culture (such as a focus on teaching and learning), what pupils do (such as being reflective and being prepared to take risks) and what teachers do were (such as using a variety of teaching styles and approaches).

## 8 Conclusions

The action research investigations by the schools involved in the first year of Phase 3 of the Campaign for Learning's Learning to Learn in Schools project overwhelmingly report positive benefits for the pupils, teachers and schools involved.

The findings are based on small-scale case studies which investigated a range of Learning to Learn approaches and techniques. This makes it difficult to determine the precise nature and cause of these identified benefits. Most schools used a combination of qualitative and quantitative data collection to triangulate their findings and, whilst these may not be conclusive, they are certainly indicative that the introduction of Learning to Learn approaches in schools has been beneficial and has a positive impact on both teachers' and pupils' motivation and that the teachers involved could identify further benefits in terms of pupils' attainment and attitudes to learning.

Where schools did use a more experimental research approach (such as by having a comparison group) both the quantitative and qualitative data are again positive and indicate clear differences in Learning to Learn classes compared with those not using the approaches. One school which investigated the use of formative assessment found an effect size difference of 0.76 in favour of the two classes involved in using the Learning to Learn approach (this indicates that an average class using this approach would move up from 50th to 23rd in a ranked list of 100 similar classes). Learning to Learn pupils also showed qualitatively different responses and understanding about their learning when compared with peers who had not been involved in Learning to Learn activities.

The role of the individual pupil has been identified as central to Learning to Learn. Developing knowledge and awareness of their own learning is the key feature of both broad Learning to Learn approaches (such as approaches which develop knowledge of how they learn) and more focussed approaches (such as assessment for learning where they take responsibility for identifying criteria to demonstrate their success in meeting learning objectives).

There is also evidence of impact on the teachers involved in terms of their own professional

learning, improvement in motivation, in confidence in using Learning to Learn strategies and approaches and increase belief and confidence in the success of these strategies to improved attainment and to help pupils see themselves as successful learners.

Learning is, of course, not something that just happens in school. To create lifelong learners connections have to be forged with learning at home and in the wider community. The value of involving parents and families at both primary and secondary level is identified in some of the case studies as a valuable approach. The impact of this appears to have a direct benefit for pupils in terms both of their engagement with school and their attainment.

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### Internet Sites

Brain Gym®: <http://www.braingym.org/>

Campaign for Learning [www.campaignforlearning.org.uk](http://www.campaignforlearning.org.uk)

Centre for Teaching and Learning, University of Newcastle, Learning to Learn Project  
<http://www.ecls.ncl.ac.uk/l2l/>

CHAMPS®: [http://www.learn-to-learn.org/index\\_uk.htm](http://www.learn-to-learn.org/index_uk.htm)

Goal Assessment ([www.goalplc.co.uk](http://www.goalplc.co.uk))

Learning Brain Expo®, [www.brainexpo.com](http://www.brainexpo.com)

Time to Talk: [www.dfes.standards.gov.uk](http://www.dfes.standards.gov.uk)

University of the First Age: <http://www.aoy.org.uk/index.php>



## Appendix 1 – Project Questionnaire

### Learning to Learn Pupil Questionnaire

Your views about learning and school

Please tell us what you think about the way you learn at your school.

Your honest views are very important. Please ask your teacher if you do not understand what a word means. There are no right or wrong answers.

Your first name: \_\_\_\_\_ Last name: \_\_\_\_\_

Your date-of-birth: \_\_\_\_ (day) \_\_\_\_ (month) \_\_\_\_ (year)

Gender: \_\_\_\_\_ (Boy or Girl) School year: \_\_\_\_\_

Your school name: \_\_\_\_\_

Your teacher: \_\_\_\_\_

#### Practice

This is a practice page to check that you are happy with the way you answer the questions. Use this example to get the hang of using words like "always", "most of the time", "sometimes", "hardly ever" and "never". Please put a ring around the answer which makes the sentence most true for you.

- 1) I like what I see on television
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 2) I eat chocolate
- |           |           |           |             |       |
|-----------|-----------|-----------|-------------|-------|
| every day | most days | sometimes | hardly ever | never |
|-----------|-----------|-----------|-------------|-------|

1

- 1 I want to do my best at school
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 2 I talk about what I did at school when I get home
- |           |           |           |             |       |
|-----------|-----------|-----------|-------------|-------|
| every day | most days | sometimes | hardly ever | never |
|-----------|-----------|-----------|-------------|-------|
- 3 My teacher listens to me
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 4 I like to learn by doing and making things
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 5 I like to know how well I have done in a lesson
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 6 My teacher gives me time to think
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 7 I am good at remembering things at school
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 8 School is boring
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 9 I like to know why I have to learn something
- |        |                  |           |             |       |
|--------|------------------|-----------|-------------|-------|
| always | most of the time | sometimes | hardly ever | never |
|--------|------------------|-----------|-------------|-------|
- 10 I feel happy at school
- |           |           |           |             |       |
|-----------|-----------|-----------|-------------|-------|
| every day | most days | sometimes | hardly ever | never |
|-----------|-----------|-----------|-------------|-------|
- 11 I like school
- |           |           |           |             |       |
|-----------|-----------|-----------|-------------|-------|
| every day | most days | sometimes | hardly ever | never |
|-----------|-----------|-----------|-------------|-------|
- 12 I talk to the teacher
- |           |           |           |             |       |
|-----------|-----------|-----------|-------------|-------|
| every day | most days | sometimes | hardly ever | never |
|-----------|-----------|-----------|-------------|-------|

2

13	My teacher helps me to learn better	always	most of the time	sometimes	hardly ever	never
14	I like doing things at school that make me think hard	always	most of the time	sometimes	hardly ever	never
15	I like to get on with my work	always	most of the time	sometimes	hardly ever	never
16	I like to learn by listening to the teacher	always	most of the time	sometimes	hardly ever	never
17	I have time to think at school	always	most of the time	sometimes	hardly ever	never
18	My teacher knows what I am good at	always	most of the time	sometimes	hardly ever	never
19	I hate school	always	most of the time	sometimes	hardly ever	never
20	I like to learn in school by talking about what we are doing	always	most of the time	sometimes	hardly ever	never
21	I listen to the teacher	always	most of the time	sometimes	hardly ever	never
22	I like to sit and think about how I have learned something	always	most of the time	sometimes	hardly ever	never
23	I like to keep learning things at home	always	most of the time	sometimes	hardly ever	never
24	My teacher likes us to ask questions	always	most of the time	sometimes	hardly ever	never

25	I like to learn new things	always	most of the time	sometimes	hardly ever	never
26	My teacher tells me how to learn better	always	most of the time	sometimes	hardly ever	never
27	My teacher tells me why I am learning things at school	always	most of the time	sometimes	hardly ever	never
28	I like learning new things at school	always	most of the time	sometimes	hardly ever	never
29	My teacher tells me when I have done well in class	every day	most days	sometimes	hardly ever	never
30	I am proud of my work at school	always	most of the time	sometimes	hardly ever	never
31	I write things down at school	always	most of the time	sometimes	hardly ever	never
32	I help other people with their work at school	every day	most days	sometimes	hardly ever	never

If you are in Year 4 or below then the questionnaire is now finished.

The following questions should only be completed if you are in Year 5 or above.

- |    |  |        |                  |           |             |       |
|----|--|--------|------------------|-----------|-------------|-------|
| 33 | I think using a computer helps me to learn                 | always | most of the time | sometimes | hardly ever | never |
| 34 | I know what to do when I get stuck                         | always | most of the time | sometimes | hardly ever | never |
| 35 | I like to draw maps or pictures to help me remember things | always | most of the time | sometimes | hardly ever | never |
| 36 | Our classroom looks nice                                   | always | most of the time | sometimes | hardly ever | never |
| 37 | I learn things at school I can do at home                  | always | most of the time | sometimes | hardly ever | never |
| 38 | I ask questions if I don't understand something in school  | always | most of the time | sometimes | hardly ever | never |
| 39 | I know why we are doing things at school                   | always | most of the time | sometimes | hardly ever | never |
| 40 | I keep trying even when I get stuck                        | always | most of the time | sometimes | hardly ever | never |

Thank you for completing the questionnaire.

Completed forms can be  
returned to:  
Kate Wall  
L2L Research Project  
School of EQLS  
Joseph Cowen House  
University of Newcastle upon Tyne  
St Thomas Street  
Newcastle upon Tyne  
NE1 7RU

## Appendix 2 - Telephone interview schedule

### Aims of the interview:

- What is Learning to Learn?
- Is this research project Learning to Learn?
- Locus of control and professional development within the research project

Over the next year a common thread we will be exploring will be definitions of Learning to Learn, so we want to get a snapshot of people's views at this stage of the project. This means that you don't have to come up with the 'definitive answer' but you can tell us what your ideas are at the moment:

- What do **you think** are 3 key characteristics of a Learning to Learn school?
- What do **you think** are 3 key things a Learning to Learn teacher does?
- What do **you think** are 3 key things a Learning to Learn pupil can do?

Next, we want to know how you feel about your research project and Learning to Learn:

- Does your research project fit within your conception of Learning to Learn?
  - 1-10 scale (where 1= not at all and 10= exactly)
- How?
  - 3 points with concrete examples
- How far do you personally feel in control of your research aims?
  - 1- 10 scale (where 1= not at all and 10= completely)
- To what extent do you feel the University vision of L2L is shaping your project?
  - 1 -10 scale (where 1= not at all and 10= completely)
- Why?
  - Give 3 concrete examples
- To what extent do you feel the Campaign for Learning vision of Learning to Learn is shaping your project?
  - 1 -10 scale (where 1= not at all and 10= completely)
- Why?
  - Give 3 concrete examples
- What are the greatest influences/impacts on your project?

- How much has this project helped you consider your whole practice?
  - 1 -10 scale (where 1= not at all and 10= in great depth/breadth)
  
- Has being involved in the Project impacted on your awareness of your professional needs?
  - List
  
- What were your expectations of the Learning to Learn Phase 3 project?
  - Give 3 examples
  
- How far has this experience matched these expectations of what a Learning to Learn research project should be?
  - 1 -10 scale (where 1= not at all and 10= completely)